

Hunter Army Airfield Georgia

Solicitation Number
DACA21-03-R-0070
Ranger Barracks Complex
Volume IV of IV – Asbestos Reports
FY-04, Line Item 51127
November 2003

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U.S. ARMY ENGINEER DISTRICT, SAVANNAH CORPS OF ENGINEERS 100 WEST OGLETHORPE AVENUE SAVANNAH, GEORGIA 31401-3640





Asbestos Survey

Building No. 1275 Hunter Army Air Field, Georgia

Prepared by Timothy A. Jones

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Asbestos Survey January 2003

Building No. 1275 Hunter Army Air Field, Georgia

by Timothy A. Jones

Final report

Approved for public release; distribution is unlimited

Asbestos Inspection Report

Introduction

Scope of the Investigation

This report documents the asbestos inspection and survey of Building No.1275 at Hunter Army Air Field; Georgia conducted 21-22 October 2002 by Savannah District US Army Corps of Engineers employees Tim Jones, and Mike Ruth. The survey was conducted in general accordance with the regulatory guidelines in the Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763 Subpart E Sections 763.80-763.88) and "Guidance for Controlling Asbestos-Containing Materials in Buildings" (Purple Book) (EPA publication number 560/5-85-024). Although not required by the AHERA guidelines, roof and other exterior miscellaneous materials were also inspected and sampled.

Background

Building No. 1275 is a 1950s vintage three-story structural concrete and masonry frame structure with multi-layered built-up asphalt and felt roof systems over structural concrete. The floor systems are structural concrete covered generally with vinyl tile. The exterior of the building has been renovated at some time and covered with a stucco material over expandable polystyrene and cloth mesh, effectively hiding the original exterior structure and hindering inspection of that original finish. The building is divided into five main sections. The center section is two story with the first incorporating a commercial type kitchen/dining facility and the second story divided between recreational areas, storage areas, Post Office, offices, two restrooms and a mechanical room. The four remaining sections are identical three story barracks wings. The barracks rooms are laid out such that generally two sleeping quarters share one bathroom and storage room, with the exception that the two outer end sleeping rooms do not share restrooms. Each floor has a separate janitor's closet, laundry room and storage room. The uppermost floor's storage room contains an access opening to the roof of that particular wing. The roofs of the four wings are identical in appearance. Rooms on the building floor plans are arbitrarily numbered for identification in this report only as indicated on Figures 1-3.

Description of study

Investigation

All accessible areas of Building No. 1275 were visually inspected for suspected asbestos containing materials (ACM) by accredited inspectors, with the exception of the identical barracks sleeping rooms which were randomly inspected, to verify and supplement the partial asbestos inspection by Air-Safe Environmental, Inc. dated May 12, 2000. Bulk samples of all suspected ACM's not previously sampled were collected. Sample locations are indicated on the floor plan Figures. Individual Figures are presented for the center hub sections of the building. Typical floor plans are presented to represent the four barracks wings and the sample numbers represent the wing and floor numbers as well as the numerical sequential sample number. An example is sample 1275-1N-2 indicates building 1275, first floor North wing, sequential sample number 2. This report details ACM as identified at the time of inspection only.

The bulk samples were analyzed by Hygeia Laboratories, Inc. Hygeia is accredited by the National Voluntary Laboratory Accredited Program (NVLAP Accreditation sponsored by the National Institute of Standards and Technology (NIST)). Copies of their accreditation certificates are included in Appendix C. The samples were analyzed by the accepted method of polarized light microscopy (PLM) using EPA's "Method For the Determination of Asbestos In Bulk Building Materials", EPA/600/R-93/116. Hygeia's analytical report is included in Appendix A.

In compliance with the AHERA regulations, material is considered an Asbestos Containing Material (ACM) when it contains greater than one percent asbestos. Likewise, in this report, any material containing concentrations greater than one percent asbestos will be considered "positive". Occasionally, materials containing less than one percent asbestos are assumed to be a "positive" asbestos containing material at the discretion of the inspectors. A narrative discussion of the AHERA ACM types (i.e., thermal systems insulation, miscellaneous and surfacing materials) found in Building No. 1275 is included in this report where relevant. Bulk sample information appears on Table 1. Estimated quantities of individual asbestos containing materials appear on Table 2. Material characterization of asbestos containing materials appears on Table 3. The specific location where each bulk sample was obtained is shown on the building floor plans, which appear as Figures. Positive ACM samples are highlighted on the floor plan Figures and, where possible, locations of positive ACM are identified. It is reasonable to assume that all materials similar to those testing positive, also contain positive amounts of asbestos and should be treated as such.

Analysis

Thermal Systems Insulation (TSI)

TSI is insulation material applied to pipes, fittings, tanks, ducts, or for other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.

- a. TSI Domestic Water Piping: The majority of pipe runs of the domestic water system throughout the building, with the exception of the first floor Mechanical Room D121, contain asbestos. This material is typically approximately one-inch thick corrugated paper type with layers of friable white asbestos materials within. The molded fittings on the domestic water piping, though testing negative, are assumed to contain asbestos due to their proximity and binding with the pipe run insulation. In some small areas the insulation has been removed or replaced, however for estimation purposes within this report, the insulation is assumed to remain. Plumbing chases in the barracks sleeping area restrooms were inaccessible for inspection and the water piping within is assumed to contain similar asbestos containing insulation. The outer dimensions of this asbestoscontaining TSI typically ranges from 3-5 inches. The domestic water piping within the first floor Mechanical Room D121 appears to have been replaced with newer fiberglass TSI -(Refer to Tables 1, 2 and 3 for specific information, and figures for sample locations and homogeneous area locations).
- b. TSI HVAC Water Piping: The HVAC hot, cold and dual temperature water piping throughout the building is of fiberglass or rubber non-ACM material.
- c. TSI Storm Drainage Piping: The pipe runs and fittings on much of the storm drainage piping from the roof drains on the interior of the building are assumed to contain asbestos. Similar pipe run material tested on Building 1276 was found to be asbestos containing. This material is typically one to one and a half inch thick, 8" outer diameter, white friable material. Molded fitting material tested in Building 1276 was found to be non-asbestos containing, but will be assumed positive due to proximity and attachment to friable asbestos pipe run material. Some material on the second floor Recreation Area piping appears to be replaced with newer fiberglass material. Material in chases is assumed to be similar asbestos containing insulation. Insulation on all of the exterior storm drain piping appears to have been replaced with fiberglass material. -(Refer to Tables 2 and 3 for specific information and Figures for homogeneous area locations).
- d. TSI Refrigeration Suction Lines: Some of the insulation on what appears to be refrigeration suction lines at the Can Wash Room D125 is coated with a black mastic vapor barrier/weather protectant that is asbestos containing. -(Refer to Tables 1, 2 and 3 for specific information and Figures for sample locations and homogeneous area locations).

e. TSI Underground HVAC Piping: The insulation on the steam and condensate piping within the exterior valve pit and underground from the pit to Building 1275 is assumed to contain asbestos based on similar positive samples from Building 1276. This material is white pre-formed block insulation of approximately 12" diameter. The mastic sealer over the joints and ends of the foam-glass insulation on the dual temperature water lines in the exterior valve pit and underground from the pit to Building 1275 is assumed to contain asbestos based on similar positive samples from Building 1276. Debris from the material may be found in the pit inside Mechanical Room D121 where the steam and condensate piping system enters the building. The valve pits are located to the east of the south barracks wing.-(Refer to Tables 2 and 3 for specific information).

Miscellaneous Materials

Miscellaneous materials include building material on structural components, structural members or fixtures, such as floor and ceiling tiles, and do not include surfacing or TSI.

In the past, there were a great number of miscellaneous building materials that had asbestos fibers added to them during the manufacturing process to increase durability and fireproofing qualities. The following suspect miscellaneous materials at Building No. 1275 were found to contain or were assumed to contain asbestos:

- a. Floor Tiles And Mastic: 12" X 12" floor tiles and associated mastic throughout the majority of Building 1275 contain or assumed to contain asbestos. 12" X 12" dark gray floor tile and mastic in the Dining area D104 both contain asbestos. 12" X 12" beige/brown/white floor tiles and mastic in the Recreation Area both contain asbestos. 12" X 12" brown/tan/white floor tiles in the corridors of the barracks wings were non-asbestos, however their associated mastic contains asbestos. 12" X 12" beige patterned floor tiles and their associated mastic typical in the barracks sleeping rooms both contain asbestos. Small areas of patch tiles located in several areas were non-asbestos but quantities are insignificant. 12" X 12" dark brown floor tiles and mastic in the Janitor's Closet Room D117, Women's Locker Room D113 and Men's Locker Room D116 are non-asbestos-(Refer to Tables 1, 2 and 3 for specific information and Figures for sample locations and homogeneous area locations).
- b. Floor Joint Sealer: Black Floor joint sealer in the many of the Storage Rooms associated with the barracks rooms contains asbestos. This material is typically 8" wide and ¼ " thick. -(Refer to Tables 1, 2 and 3 for specific information and Figures for sample locations homogeneous area locations).

- c. Window Glazing Compound: Window glazing compound applied to the windows in the vicinity of the first floor Mechanical Room D121 contains asbestos. The remainder of the windows has been replaced with newer aluminum frame components and is non-asbestos containing- (Refer to Tables 1, 2 and 3 for specific information and Figures for sample locations homogeneous area locations).
- d. Window Caulking Compound: Caulking compound around the metal window frame at the first floor Mechanical Room D121 contains asbestos. -(Refer to Tables 1, 2 and 3 for specific information and Figures for sample locations and homogeneous area locations).
- e. Fire Rated Doors: Fire rated doors were not sampled since destruction of the door would be required. As a result, all such doors are assumed to be asbestos containing. One hundred and ten doors of seven types are listed in the door schedule on as built drawing dated 1979 Plate A17 from the Barracks Modernization project of that time frame. It is suggested that one door of each type be inspected at demolition to determine if asbestos is present. -(Refer to Tables 2 and 3 for specific information and Figures for homogeneous area locations).
- f. Gaskets: Gaskets between flanges in the mechanical piping systems are assumed to contain asbestos. The majority of these will be found in Mechanical Room D121 and are not indicated on a floor plan Figure.

Surfacing Materials

Surfacing material is friable material that is sprayed on, troweled on, or otherwise applied to surfaces for decorative or other purposes.

a. Silver Surfacing Material: Silver brushed on surfacing material commonly referred to as "Cool Seal" located on the air handler and other structures installed on the Recreation Area roof contain asbestos- (Refer to Tables 1, 2 and 3 for specific information and Figures for sample locations and homogeneous area locations).

Conclusions

The following materials found at Building No. 1275 contain or are assumed to contain positive amounts of asbestos:

- a. Floor Tile & Mastic: Floor tiles and or mastic throughout Building 1275 contain asbestos.
- b. Floor Joint Sealer: Floor joint sealer in many of the barracks storerooms contains asbestos.
- c. TSI Pipe Insulation: TSI pipe run and fitting insulation on the domestic water piping within the main building contains asbestos. TSI pipe run and fitting insulation on portions of the storm drainage piping system inside the building contains asbestos. TSI pipe insulation coating material on refrigeration suction lines outside of the kitchen entrance contains asbestos. TSI pipe run and fitting material on the steam and condensate lines in the exterior valve pit and underground to the building is assumed to contain asbestos. TSI mastic on the joints and seams of the dual temperature water piping in the valve pit and underground is assumed to contain asbestos.
- d. Window Glazing Material: Window glazing material on windows near the first floor Mechanical Room D121 contains asbestos.
- e. Window Caulking Material: Window caulking material on the window frame at the first floor Mechanical Room D121 window contains asbestos.
- f. Silver Surfacing Material: Silver surfacing material ("Cool Seal") on structures on the Recreation Area roof contains asbestos.
- g. Fire Rated Doors: Fire rated doors are assumed to contain asbestos.
- h. Gaskets: Gaskets within the mechanical piping systems are assumed to contain asbestos.

List of Ta	bles
Table 1.	Suspect ACM Samples
Table 2.	ACM Quantity Summary
Table 3.	Material Characterization and Assessment
List of Fig	gures
Figure 1.	HFHH101.dgn – Kitchen & Dining Room Survey Results17
Figure 2.	HFHH102.dgn – Recreation Area Survey Results
Figure 3.	HFHH103.dgn – Recreation Area Roof Survey Results
Figure 4.	HFHH104.dgn – Barracks Wings Survey Results
Appendic	es
Appendix	A. Analytical Report – Hygeia Laboratories, Inc21-34
Appendix Appendix	

TABLE 1 SUSPECT ACM SAMPLES HUNTER ARMY AIRFIELD, BUILDING 1275

FIELD ID	DESCRIPTION	LOCATION	ASBESTOS TYPE & %
1275-1N-1	12" x 12" brn/tan/white floor tile & mastic	Corridor, 1 st floor north wing	Tile NAD, mastic 2% chrysotile
1275-1N-2	12" X 12" tan/blk/gray floor tile & mastic	Corridor, 1 st floor north wing, patch tile	None
1275-1N-3	12" X 12" beige patterned floor tile & mastic	Room 104, north wing, typical of all sleeping room tile	Tile 3% chrysotile, mastic 2% chrysotile
1275-1N-4	2' X 4' ceiling tile, worm hole & pin holes, newer looking	Corridor, 1 st floor north wing	None
1275-1N-5	2' X 4' ceiling tile, large worm hole, fewer pin holes	Corridor, 1 st floor north wing	None
1275-1N-6	2' X 4' ceiling tile, pin holes w radial pattern	Corridor, 1 st floor north wing	None
1275-1N-7	Drywall joint compound	Room 107, north wing, near window	None
1275-1N-8	Wall plaster	Restroom 136, north wing	None
1275-1N-9	Popcorn type ceiling surfacing	Laundry room 123, north wing	None
1275-1N-10	Drywall joint compound	Laundry room 123, north wing, wall	None
1275-2N-11	Floor joint sealer	Storeroom at room 224, north wing	20% chrysotile
1275-2N-12	Drywall joint compound	Storeroom at room 237, north wing	None
1275-2N-13	TSI pipe run insulation	Domestic hot water pipe, utility room 202, north wing	10% chrysotile
1275-3N-14	12" X 12" beige patterned floor tile & mastic	Room 309, north wing, typical of all sleeping room tile	Tile 2% chrysotile, mastic 3% chrysotile
1275-2RAM- 15	Floor joint sealer	Recreation Area mechanical room R209	None

1275-2RAM-	Drywall joint	Recreation Area mechanical	None
16	compound	room R209, above breaker box	
1275-2RAM- 17	Duct flex joint	Recreation Area mechanical room R209	None
1275-2RA-	12" X 12"	Game area, Room R212,	Tile 2% chrysotile,
18	beige/brn/white	typical floor tile for	mastic 4% chrysotile
	floor tile &	Recreation Area	
	mastic		
1275-2RA-	Drywall joint	Game Area, Room R212, west	None
19	compound	wall at window	
1275-2RA-	Drywall joint	Seating Area, Room R211,	None
20	compound	interior wall	
1275-2RA-	12" X 12" gray	Seating Area, Room R211,	None
211	floor tile	patch tile	
1275-2RA-	Drywall joint	Recreation Area, north exterior	None
22	compound	wall	
1275-RAR-	Multi-layer built-	Recreation Area roof field	None
23	up roofing		
	membrane		
1275-RAR-	Roof insulation	Recreation Area roof field,	None
24		under sample 23	
1275-RAR-	Gray flashing &	Recreation Area roof, at base of	None
25	cement	air handler	
1275-RAR-	Silver "Cool	Recreation Area roof, on air	25% chrysotile
26	Seal" surfacing	handler system	
	material		
1275-RE-27		Foot win a noof field	None
12/3 111-2/	Multi-layer built-	East wing roof field	None
12/J KL-2/	up roofing	East wing fool field	None
	up roofing membrane		
1275-RE-28	up roofing membrane Gray flashing &	East wing roof field East wing roof, at base of roof	None
1275-RE-28	up roofing membrane Gray flashing & cement	East wing roof, at base of roof vent	None
	up roofing membrane Gray flashing & cement Rolled roofing	East wing roof, at base of roof vent East wing roof, at base of	
1275-RE-28	up roofing membrane Gray flashing & cement Rolled roofing flashing, multi-	East wing roof, at base of roof vent	None
1275-RE-28 1275-RE-29	up roofing membrane Gray flashing & cement Rolled roofing flashing, multi- layered	East wing roof, at base of roof vent East wing roof, at base of parapet wall	None None
1275-RE-28	up roofing membrane Gray flashing & cement Rolled roofing flashing, multilayered Wall sleeve	East wing roof, at base of roof vent East wing roof, at base of parapet wall East wing, third floor corridor,	None
1275-RE-28 1275-RE-29 1275-3E-30	up roofing membrane Gray flashing & cement Rolled roofing flashing, multi- layered Wall sleeve packing	East wing roof, at base of roof vent East wing roof, at base of parapet wall East wing, third floor corridor, near laundry	None None None
1275-RE-28 1275-RE-29	up roofing membrane Gray flashing & cement Rolled roofing flashing, multi- layered Wall sleeve packing 12" X 12"	East wing roof, at base of roof vent East wing roof, at base of parapet wall East wing, third floor corridor, near laundry West wing, Room 112, patch	None None None Tile NAD, mastic 4%
1275-RE-28 1275-RE-29 1275-3E-30	up roofing membrane Gray flashing & cement Rolled roofing flashing, multilayered Wall sleeve packing 12" X 12" tan/brn/white	East wing roof, at base of roof vent East wing roof, at base of parapet wall East wing, third floor corridor, near laundry	None None None
1275-RE-28 1275-RE-29 1275-3E-30	up roofing membrane Gray flashing & cement Rolled roofing flashing, multi- layered Wall sleeve packing 12" X 12" tan/brn/white floor tile &	East wing roof, at base of roof vent East wing roof, at base of parapet wall East wing, third floor corridor, near laundry West wing, Room 112, patch	None None None Tile NAD, mastic 4%
1275-RE-28 1275-RE-29 1275-3E-30 1275-1W-31	up roofing membrane Gray flashing & cement Rolled roofing flashing, multi- layered Wall sleeve packing 12" X 12" tan/brn/white floor tile & mastic	East wing roof, at base of roof vent East wing roof, at base of parapet wall East wing, third floor corridor, near laundry West wing, Room 112, patch tile	None None None Tile NAD, mastic 4% chrysotile
1275-RE-28 1275-RE-29 1275-3E-30	up roofing membrane Gray flashing & cement Rolled roofing flashing, multilayered Wall sleeve packing 12" X 12" tan/brn/white floor tile & mastic 12" X 12" light	East wing roof, at base of roof vent East wing roof, at base of parapet wall East wing, third floor corridor, near laundry West wing, Room 112, patch	None None Tile NAD, mastic 4% chrysotile Tile 3% chrysotile,
1275-RE-28 1275-RE-29 1275-3E-30 1275-1W-31	up roofing membrane Gray flashing & cement Rolled roofing flashing, multilayered Wall sleeve packing 12" X 12" tan/brn/white floor tile & mastic 12" X 12" light gray/blk floor tile	East wing roof, at base of roof vent East wing roof, at base of parapet wall East wing, third floor corridor, near laundry West wing, Room 112, patch tile	None None None Tile NAD, mastic 4% chrysotile
1275-RE-28 1275-RE-29 1275-3E-30 1275-1W-31	up roofing membrane Gray flashing & cement Rolled roofing flashing, multi-layered Wall sleeve packing 12" X 12" tan/brn/white floor tile & mastic 12" X 12" light gray/blk floor tile & mastic	East wing roof, at base of roof vent East wing roof, at base of parapet wall East wing, third floor corridor, near laundry West wing, Room 112, patch tile West wing Room 225	None None None Tile NAD, mastic 4% chrysotile Tile 3% chrysotile, mastic 4% chrysotile
1275-RE-28 1275-RE-29 1275-3E-30 1275-1W-31	up roofing membrane Gray flashing & cement Rolled roofing flashing, multilayered Wall sleeve packing 12" X 12" tan/brn/white floor tile & mastic 12" X 12" light gray/blk floor tile	East wing roof, at base of roof vent East wing roof, at base of parapet wall East wing, third floor corridor, near laundry West wing, Room 112, patch tile	None None Tile NAD, mastic 4% chrysotile Tile 3% chrysotile,

1275-2S-34	Drywall joint	Laundry room 223, South wing,	None
	compound	exterior wall	
1275-1E-	TSI Molded pipe	Corridor ceiling, first floor, east	None
35PV	valve insulation,	wing	
	4"OD, domestic		
	water		
1275-E-	TSI pipe run	Electrical Room D120	20% chrysotile
36PR	insulation,		
	domestic hot		
	water return, 3"		
1055 F	OD	EL (LD D120	100/ 1 49
1275-E-	TSI pipe run	Electrical Room D120	10% chrysotile
37PR	insulation,		
	domestic hot		
	water supply, 3" OD		
1275-E-	TSI pipe run	Electrical Room D120	10% chrysotile
38PR	insulation,		
	domestic cold		
	water supply, 5"		
	OD		
1275-EX-39	Window glazing	Exterior of window,	5% chrysotile
	compound	Mechanical Room D121	
1275-EX-40	Window frame	Exterior of window,	5% chrysotile
1275-EX-40	caulking	Exterior of window, Mechanical Room D121	5% chrysotile
	caulking compound	Mechanical Room D121	·
1275-EX-40 1275-EX-41	caulking compound TSI Pipe jacket,	Mechanical Room D121 Exterior of Mechanical Room	5% chrysotile None
	caulking compound	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe	·
1275-EX-41	caulking compound TSI Pipe jacket, 12" OD	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground	None
	caulking compound TSI Pipe jacket, 12" OD Walk in cooler	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room	·
1275-EX-41	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation &	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground	None
1275-EX-41 1275-1-42	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124	None None
1275-EX-41	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at	None
1275-EX-41 1275-1-42	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic insulation	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at door of Can Wash Room	None None
1275-EX-41 1275-1-42 1275-1-43	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic insulation coating, 2" OD	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at door of Can Wash Room D125	None None 10% chrysotile
1275-EX-41 1275-1-42	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic insulation coating, 2" OD 2' X 2' ceiling tile,	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at door of Can Wash Room	None None
1275-EX-41 1275-1-42 1275-1-43	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic insulation coating, 2" OD 2' X 2' ceiling tile, off white	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at door of Can Wash Room D125 Dry Storage, Room D118	None None 10% chrysotile None
1275-EX-41 1275-1-42 1275-1-43	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic insulation coating, 2" OD 2' X 2' ceiling tile, off white 2' X 2' ceiling tile,	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at door of Can Wash Room D125	None None 10% chrysotile
1275-EX-41 1275-1-42 1275-1-43	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic insulation coating, 2" OD 2' X 2' ceiling tile, off white 2' X 2' ceiling tile, white	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at door of Can Wash Room D125 Dry Storage, Room D118	None None 10% chrysotile None None
1275-EX-41 1275-1-42 1275-1-43 1275-1-44 1275-1-45	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic insulation coating, 2" OD 2' X 2' ceiling tile, off white 2' X 2' ceiling tile,	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at door of Can Wash Room D125 Dry Storage, Room D118 Dry Storage, Room D118 Men's Locker Room D116	None None 10% chrysotile None
1275-EX-41 1275-1-42 1275-1-43 1275-1-44 1275-1-45	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic insulation coating, 2" OD 2' X 2' ceiling tile, off white 2' X 2' ceiling tile, white 12" X 12" dark	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at door of Can Wash Room D125 Dry Storage, Room D118 Dry Storage, Room D118	None None 10% chrysotile None None
1275-EX-41 1275-1-42 1275-1-43 1275-1-44 1275-1-45	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic insulation coating, 2" OD 2' X 2' ceiling tile, off white 2' X 2' ceiling tile, white 12" X 12" dark brown floor tile &	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at door of Can Wash Room D125 Dry Storage, Room D118 Dry Storage, Room D118 Men's Locker Room D116 (also found in Women's Locker	None None 10% chrysotile None None
1275-EX-41 1275-1-42 1275-1-43 1275-1-44 1275-1-45	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic insulation coating, 2" OD 2' X 2' ceiling tile, off white 2' X 2' ceiling tile, white 12" X 12" dark brown floor tile &	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at door of Can Wash Room D125 Dry Storage, Room D118 Dry Storage, Room D118 Men's Locker Room D116 (also found in Women's Locker Room D113 and Janitor Room	None None 10% chrysotile None None
1275-EX-41 1275-1-42 1275-1-43 1275-1-44 1275-1-45 1275-1-46	caulking compound TSI Pipe jacket, 12" OD Walk in cooler wall insulation & mastic TSI mastic insulation coating, 2" OD 2' X 2' ceiling tile, off white 2' X 2' ceiling tile, white 12" X 12" dark brown floor tile & mastic	Mechanical Room D121 Exterior of Mechanical Room D121, north side, where pipe exits wall & enters ground Garbage refrigerator, Room D124 Refrigeration suction line, at door of Can Wash Room D125 Dry Storage, Room D118 Dry Storage, Room D118 Men's Locker Room D116 (also found in Women's Locker Room D113 and Janitor Room D117)	None None 10% chrysotile None None None

1275-1-49PR	TSI pipe run insulation, domestic hot water supply, 5" OD	Office, Room D112	12% chrysotile
1275-1-50PR	TSI pipe run insulation, domestic cold water supply, 5" OD	Office, Room D112	10% chrysotile
1275-1-51	Drywall joint compound/plaster	Office, Room D112	None
1275-1-52	12" X 12" brown/white/red floor tile & mastic	Carbonated Beverage Room D105	Tile NAD, mastic <1% chrysotile
1275-1-53	Sheet vinyl flooring, terrazzo colored	Dining Room D104, perimeter	None
1275-1-54	12" X 12" dark gray floor tile & mastic	Dining Room D104, majority of room	Tile 3% chrysotile, mastic 2% chrysotile
1275-1-55	12" X 12" tan/brown floor tile & mastic	Dining Room D104, patch tile	None
1275-1-56	12" X 12" white/gray floor tile & mastic	Dining Room D104, patch tile	None
1275-1-57	Felt paper	Exterior wall of Dining Room D104, against framing	None
1275-EX-58	Felt paper	Exterior wall of east wing, under stucco	None
1275-RA-59	Drywall joint compound	Recreation Area, Room R208, wall	None

Samples testing positive for asbestos indicated in **BOLD** type NAD = No Asbestos Detected

TABLE 2 ACM QUANTITY SUMMARY HUNTER ARMY AIRFIELD, BUILDING 1275

					Are	ea Descripti	ons		
Material Description	UNITS	EXTERIOR WIMDOW FRAMES	KITCHEN & DINING	RECREATION AREA	TYPICAL BARRACKS WINGS	RECREATION AREA ROOF	BARRACKS WINGS SLEEPING ROOMS STORAGE CLOSETS	MECHANICAL ROOMS	TOTALS
Caulking Material	L.F.	125							125
Window Glazing Compound	L.F. 1" Wide	250							250
Floor Tile & Mastic	S.F.		3,714	9,130	56,892				69,736
Floor Joint Sealer	S.F.						1,408		1,408
"Cool Seal" Surfacing	S.F.					600			600
Fire Rated Doors	EA				118				118
Gaskets	Ea.							100	100

					Ar	ea Descripti	ons			
Material Description	SLINO	EXTERIOR WINDOW FRAMES	KITCHEN & DINING	RECREATION AREA	TYPICAL BARRACKS WINGS	RECREATION AREA ROOF	MECHANICAL ROOM D121	ELECTRICAL ROOM D120	EXTERIOR AT CAN WASH ROOM	TOTALS
3" OD TSI Pipe Run	L.F.		644	40	6724			40		7448
3" OD TSI Pipe Fittings	Ea.		50		3585			15		3650
TSI 4" Pipe Run	L.F.		30		224					254
TSI 4" Pipe Fittings	Ea.		37		100					137
TSI 5" Pipe Run	L.F.		968	40	4740			80		5784
TSI 5" Pipe Fittings	Ea.		50		460			20		530
TSI 6" Pipe Run	L.F.		40	60			20			120
TSI 6" Pipe Fittings	Ea.			8			2			10
TSI Mastic	L.F.								20	20

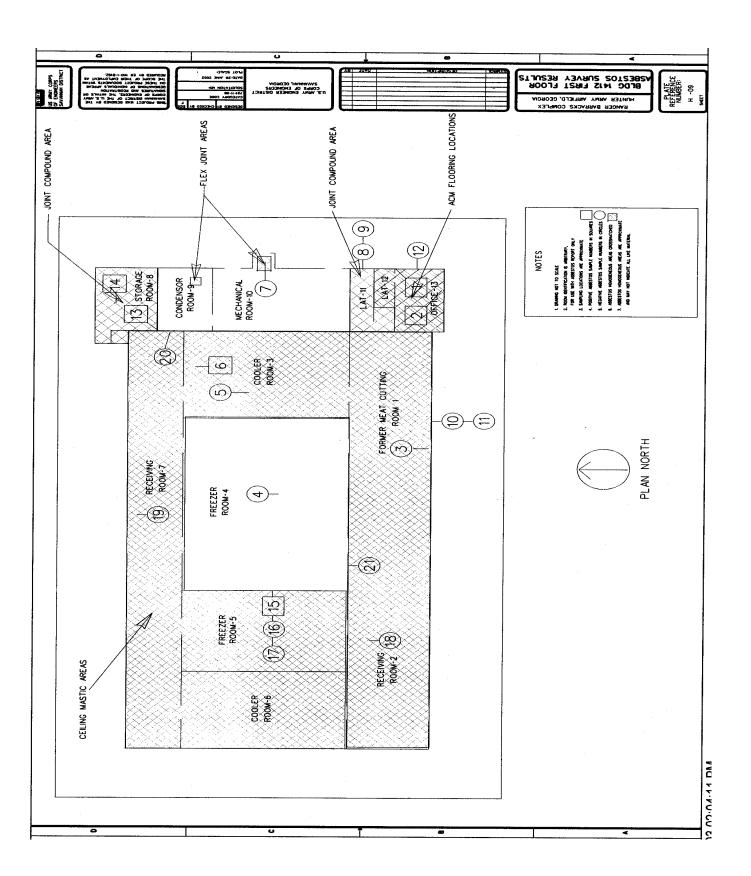
				Arc	ea Descripti	ons		
Material Description	NITS	VALVE PIT AND UNDERGROUND						TOTALS
12" OD TSI Pipe Run, STEAM AND CONDE- NSATE	L.F.	360						360
TSI MASTIC ON FOAM- GLASS JOINTS AND ENDS, 3" WIDE	L. F.	730						730

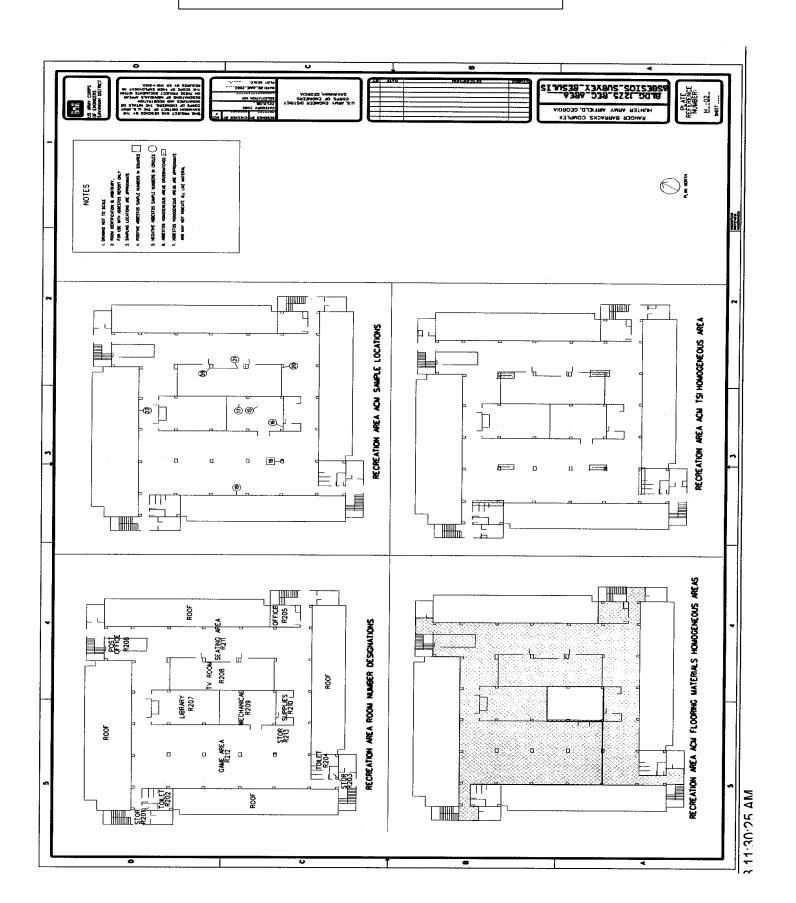
TABLE 3
MATERIAL CHARACTERIZATION AND ASSESSMENT
HUNTER ARMY AIRFIELD, BUILDING 1275

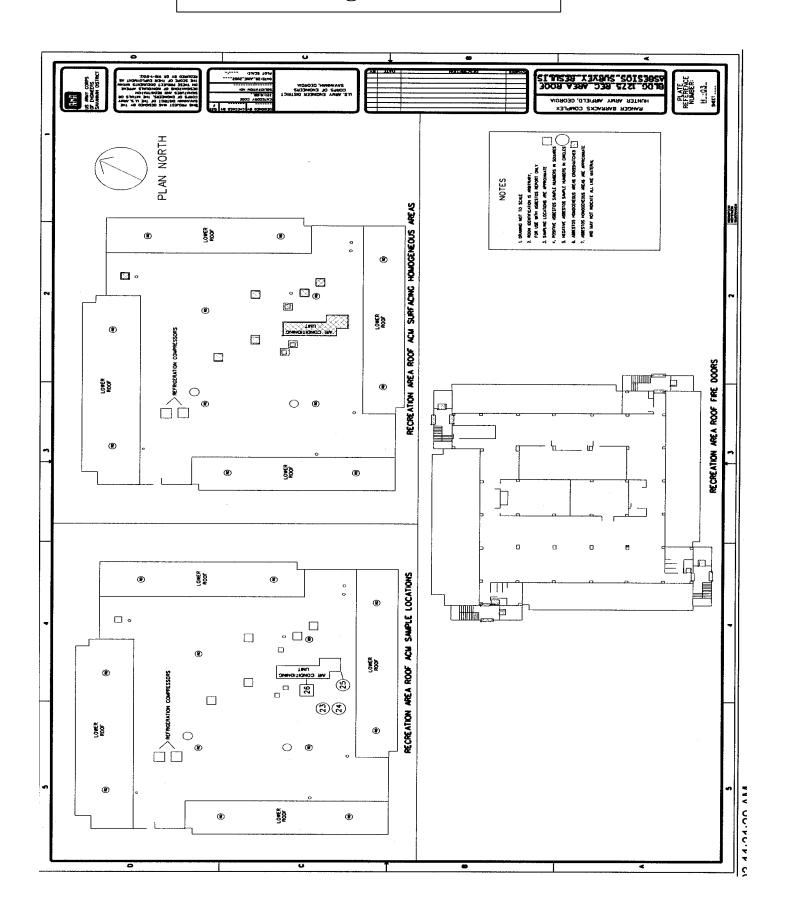
MA	ΓERIAL	CHA	RACTERIS	ΓICS	ASSI	ESSMENT
Type	Description	Asbestos Yes/No/Assumed	Quantity (If ACM)	Friable / Non- friable	Condition	Disturbance Potential
TSI	3" OD TSI Pipe Run	Yes 10-20%	7448 L.F.	Friable	Damaged	Moderate
TSI	3" OD TSI Pipe Fittings	Assumed	3650 Ea.	Friable	Damaged	Moderate
TSI	4" OD TSI Pipe Run	Yes 10-20%	254 L.F.	Friable	Damaged	Moderate
TSI	4" OD TSI Pipe Fittings	Assumed	137 Ea.	Friable	Damaged	Moderate
TSI	5" OD TSI Pipe Run	Yes 10-20%	5784 L.F.	Friable	Damaged	Moderate
TSI	5" OD TSI Pipe Fittings	Assumed	530 Ea.	Friable	Damaged	Moderate
TSI	6" OD TSI Pipe Run	Assumed	120 L.F.	Friable	Damaged	Moderate
TSI	6" OD TSI Pipe Fittings	Assumed	10 Ea.	Friable	Damaged	Moderate
TSI	Mastic on Refrig. Pipe	Yes 10%	20 L.F.	Non-friable	Good	Low
TSI	12" OD TSI Pipe Run and Fittings	Assumed	360 L.F.	Friable	Significantly Damaged	
TSI	3" Wide Mastic	Assumed	730	Non-friable	Good	

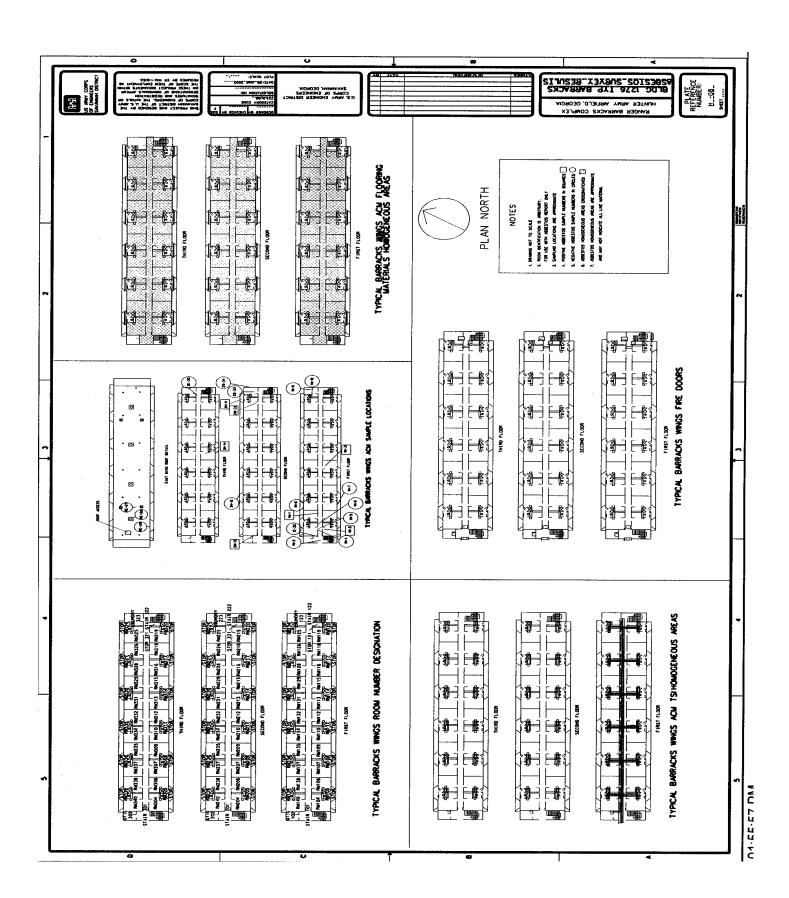
Miscellaneous	Gaskets	Assumed	100 Ea.	Non-friable	Good	Low
Miscellaneous	Caulking	Yes 5%	125 L.F.	Non-friable	Damaged	Moderate
	Material					
Miscellaneous	Window	Yes 5%	250 L.F.	Friable	Significantly	High
	Glazing				damaged	
Miscellaneous	Floor Tile &	Yes 2-4%	69,736	Non-friable	Damaged	Moderate
	Mastic		S.F.			
Miscellaneous	Floor Joint	Yes 20%	1,408	Non-friable	Good	Low
	Sealer		S.F.			
Miscellaneous	Fire Rated	Assumed	118 Ea.	?	Good	Low
	Doors					
Surfacing	Silver (Cool	Yes 25%	600 S.F.	Non-friable	Good	Low
	Seal) Coating					

S.F. = Square Foot, L.F. = Linear Foot, C.F. = Cubic Foot









Appendix A

Analytical Report - Hygeia Laboratories, Inc.



HYGEIA laboratories, in

1300 Williams Drive, Suite A - Marietta, Georgia 30066-6299 - (770) 514-6933, FAX (770) 514-6966

US Army Corp of Engineers Environmental & Materials Unit 200 North Cobb Parkway Bldg. 400, Ste. 404 Marietta, GA 30062

Subject:

Hygeia Project Number: A0211003 Client Project Number/Name: 7650 /Hunter AAF Bldg 1275

Dear Mr. Tim Jones:

Enclosed are the analytical results of bulk samples submitted by you to this laboratory on 10/25/2002. All analyses were performed by polarized light microscopy (PLM) in accordance with the EPA method as defined in Perkins and Harvey, July 1993, "Methods for the Determination of Asbestos in Bulk Materials" 61pp. (EPA/600/R-93/116). The reported percentages are volume estimates obtained by calibrated visual estimation. The results in this report apply only to the items tested.

The EPA defines an asbestos containing material (ACM) as a material that is reported to contain greater than one percent asbestos. HYGEIA is only responsible for the accuracy of the analytical results provided in this report and cannot be held responsible for the errors resulting from improper sample collection techniques. This report may not be used to claim product endorsement by NVLAP or any other U.S. Government agency.

For nonhomogeneous samples, each layer was analyzed separately and the results combined to form the reported value except where otherwise noted. Vinyl floor tile samples with negative results by PLM should be submitted for confirmation by transmission electron microscopy (TEM). Friable samples containing less than 10% asbestos as determined by PLM may be resubmitted for point counting at your discretion.

Thank you for using our analytical services. HYGEIA Laboratories has been NVLAP accredited since 1988. Our current NVLAP code is 102087-0. We will keep a copy of this report on file for three years. We will dispose of your samples in 60 days unless you request that we return them. This report my be reproduced only in its entirety with the consent of Hygeia Laboratories, Inc. If you have any questions, please call us at (770) - 514-6933.

Asbestos Laboratory Manager

NVLAP#

102087-0 30-0232

Texas Dept. of Health #

Commonwealth of Virginia # 3333-000210

11/13/2002

Hygeia 1300 Wi Mai	Hygeia Laboratories Inc. 1300 Williams Drive, Suite A Marietta, GA 30066 (770) 514-6933	nc. ite A	,			PLM A	PLM Analysis Summary	ummary						
Hygeia Proje Client Projec	Hygeia Project Number: A0211003 Client Project Number/Name: 7650 / Hunter AAF Bldg 1275	11003 : 7650 / Hi	unter AAF	Bldg 127	ь						P. Analyza	Page: 1 of 12 Analyzed: 10/29/2002 by JC	if 12 9/2002 b	် ၁၃ ^
Sample ID	le ID	Sample	Sample Description	ion		Asbest	Asbestos Percent	ıţ		Othe	Other Fibers		Non -	Non - Fibers
Client #	Hygeia #	Color	Texture	Homog	Chr.	Am.	CIO	An.	IA	<u></u>	Glass	빙	B/F	ONF
1275-1N-1	A0211003-01	Tan	Cons.	2	۸ %								100%	
Comment: 1	Comment: Tile: NAD. Mastic: 2% Chr	: 2% Chry	rysotile. Asbestos Detected.	sbestos Der	lected.									
Client #	Hvgeia #	<u> </u>	Texture	Homog.		Am.	<u>2</u>	₽ F	¥	S	Glass	비 ·	B/F	ONE
1275-1N-2	A0211003-02	Ę	Cons.	2									100%	
Comment: T	Comment: Tile: NAD. Mastic: NAD. No Asbestos Detected.	NAD.	Asbestos	Detected.										
Client #	Hygeia #	<u> </u>	Texture	Homog	휭	Am.	CIO	An	T/A	Sell	Glass	빙	B/F	ONF
1275-1N-3	A0211003-03	돝	Sins.	2	3%		nis .						%26	
Comment: T	Comment: Tile: 3% Chrysotik. Mastic:		2% Chrysotile Asbestos Detected.	offle.	estos Dete	ected.								
Client #	Hygeia #	힁	Texture	Homog.	췽	Ą	<u>S</u>	<u>An.</u>	<u>T/A</u>	Cell.	Glass	읭	B/F	ONF
1275-1N-4	A0211003-04	White	Fibrous	2						40%	%0 2		40%	
Comment:	No Asbestos Detected.	3												
Client #	Hygeia #	<u> </u>	Texture	Homog	हें	Å	읭	Ą	1	=	Glass	빙	B/F	ONE

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Fibrous

White

A0211003-05

1275-1N-5

Comment: No Asbestos Detected.

Sample ID Sample Des Client # Hygeia # Color Te 1275-1N-6 A0211003-06 White Fit Comment: No Asbestos Detected. Te Te 1275-1N-7 A0211003-07 White F Comment: Joint Compound: NAD. Rest: NAJ Client # Hygeia # Color Te 1275-1N-8 A0211003-08 White Color Te														
Client # Hyge		Sample	Sample Description	o uo		Asbest	Asbestos Percent	¥		Othe	Other Fibers		Non - Fibers	Ë
Client # Hyge Comment: No Asbest Client # Hyge 1275-1N-7 A0211 Comment: Joint Comp	aja #	Color	Texture	Homog.	Chr.	Am.	Cro.	An.	<u>T/A</u>	Cell	Glass	임	B/F	
Comment: No Asbest Client # Hyge 1275-1N-7 A0211 Comment: Joint Comp	A0211003-06	White	Fibrous	8						40%	20%		40%	
Client # Hyge 1275-1N-7 A0211 Comment: Joint Comp Client # Hyge	tos Detec	.									1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			
Comment: Joint Comp Client # Hyge 1275-1N-8 A0211	#	Color	Texture	Homog.	高	<u>Am.</u>	Ci	<u>An.</u>	IM	Cell	Glass	닒	B/F	NO N
	A0211003-07	White AD. Rest:	Flaky NAD. No	iaky No D. No Asbestos Detected	Detected.				₹. 1	40%			% 06	
, 												50. "		
	# Bis	Color	Texture	Homog.	녌	Am.	<u>S</u>	An.	I/A	Cell	Glass	빙	B/F	읭
	A0211003-08	White	Cons.	, se									100%	
Comment: No Asbestos Detected.	ios Detect													
Client # Hygeia #	# ei	Color	Texture	Homog.	휭	₩.	00	A.	I/A	Cell	Glass	빙	B/F	NO PNO
1275-1N-9 A0211	A0211003-09	White	Gummy	Yes									100%	
Comment: No Asbestos Detected.	os Detect	ij												
Client # Hygeia #	# #	<u>solo</u>	Texture	Homog.	형	₩	20	A.	I/A	<u></u>	Glass	빙	B/F	ONF

24

Comment: Joint Compound: NAD. Rest: NAD. No Asbestos Detected.

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A0211003-10 White Flaky

1275-1N-10

806

# 10000	Sample ID	Sample	Sample Description			Asbest	Asbestos Percent	Ę		ö	Other Fibers	ibers Non - Fibe	Non	Non - Fibers
# 11910	Hygeia #	Color	Texture	Homog.	G.	Am.	S	An.	' ≸ 	Cell.	Glass	비	B/F	휭
1275-2N-11	A0211003-11	Black	Gummy	Yes	20%								80%	
Comment: A	Asbestos Detected.	-i												
Client #	Hygeia #	Color	Texture	Homog.	힑	Am.	Ö	An.	<u>I/A</u>	S	Glass	빙	B/F	ONE
1275-2N-12	A0211003-12	White	Flaky	2						10%			%06	
Comment: Joint Compound: NAD. Rest: NAD. No Asbestos Detected.	nt Compound: N	(AD. Rest:	NAD. No	Asbestos	Detected.									
Client #	Hygeia #	Color	Texture	Homog.	딍	Am.	Cio Cio	- Au	T/A	Se	Glass	비	B/F	
1275-2N-13	A0211003-13	Gray	Fibrous	2	40%					20%	2%		65%	
Comment: As	Asbestos Detected													
Client #	Hygeia #	Color	Texture	Нотод.		Am.	2	An.	T/A	Sell.	Glass	빙	B/F	ONF
1275-3N-14	A0211003-14	둺	Se Se Se	2	2%							- 91	%86 8	
Comment: Tile: 2% Chrysotile. Mastic: 3%	e: 2% Chrysotile	e. Mastic:	3% Chrys	Chrysotile Asbestos Detected.	estos Dete	scted.								

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Glass

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Cio Cio

Am.

Texture Homog. Chr. Gummy Yes

S

Hygeia #

Client #

1275-2RAM-15 A0211003-15 Black

Comment: No Asbestos Detected.

Sample ID Sample Description Asbestos Percent Other Fibers Other Fibers Non - Fibers Client# I Hygeia # Good	Client Project	Client Project Number/Name: 7650 / Hunter AAF Bldg 1275	: 7650 / H	unter AAF	Bldg 1275	10						Analyz	Analyzed: 10/29/2002 by JC	9/2002 b	ر ا ا
Marie Homoga Chr. Am. Gro. An. 11A Gel. Glass Of Portrol 10%	Sample	٥	Sample	Descripti	lon		Asbesto	S Percer	1		other Contraction	r Fibers		Non-	Fibers
No Asbestos Detected. 10% 10% 10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	Client #	Hygeia #	Color	Texture	Homog.	Chr.	Am.	<u>C</u>	<u>An</u>	T/A	<u>ම</u>	Glass	· 비	B/F	ONE
Line Chr. Am. Cro. An. T/A Cell. Glass OF B/F my No Am. Cro. An. T/A Cell. Glass OF B/F us Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F is. No 2% An. T/A An. T/A Gell. Glass OF B/F hrysotile. Asbestos Detected. An. T/A Cell. Glass OF B/F ry No An. T/A An. T/A Cell. Glass OF B/F ry No Asbestos Detected. An. T/A Cell. Glass OF B/F ry No Asbestos Detected. An. T/A An. T/A An.	1275-2RAM-16	A0211003-16	White	Flaky	2						10%			%06	
ure Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F mry No Line Chr. Am. Cro. An. T/A Cell. Glass OF B/F nr Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F nr Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F r No No An. T/A Cell. Glass OF B/F r N	Comment: Join	nt Compound: N	AD. Rest:		Asbestos 1	etected.									
wine Homoga. Chr. Am. Cro. An. TiA Cell. Glass OF BiF winy No 2m. Am. Cro. An. TiA Cell. Glass OF BiF is. No 2% Am. Cro. An. TiA Cell. Glass OF BiF is. No 2% Am. Cro. An. TiA Cell. Glass OF BiF ny No Am. Cro. An. TiA Cell. Glass OF BiF ny No Am. Cro. An. TiA Cell. Glass OF BiF ny No Am. Cro. An. TiA Cell. Glass OF BiF ny No Am. Cro. An. TiA Cell. Glass OF BiF ny No Am. TiA <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>															
my No An Cro. An. T/A Cell. Glass OF B/E ns. No 2% An. T/A Cell. Glass OF B/E ns. No 2% An. T/A An. Gell. Glass OF B/E nre Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/E vy. No No Asbestos Detected. 10% 90% 90%	Client #	Hygeia #	Color	Texture	Homog.	Chr.	Am.	Cio.	An.	¥.	Sell	Glass	빙	<u> </u>	ONF
ure Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F rs. No 2% 98% hrysotile. Asbestos Detected. 98% ure Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F ry No No 10% 90% ry No Asbestos Detected. 90%	1275-2RAM-17	A0211003-17	Black	Gummy	2							40%		%09	
ure Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F is. No 2% 98% hrysotile. Asbestos Detected. 98% ure Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F No No No 10% 90% 90%		o Asbestos Detec	ted.												
No Asbestos Detected. Am. Cro. An. T/A Cell. Glass OF B/F															
hrysotile. Asbestos Detected. We Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/E iv. No Asbestos Detected.	Client #	Hygeia #	Color	Texture	Homog.	S.	Am.	Cro.	- Au	T/A	Cell	Glass	빙	B/F	ONF
hrysotile, Asbestos Detected. <u>ure Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F</u> ky No . No Asbestos Detected.	1275-2RA-18	A0211003-18	ᇤ	Cons.	2	7%								% 886	
ure Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/E Ny No No 10% 90%	Comment: Tile	e: 2% Chrysotile	2. Mastic:	4% Chryso	tile. Ash	estos Dete	cted.								
ure Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F Ny No No Asbestos Detected.															
No Asbestos Detected.	Client #	Hygeia #	Color		Homog.	搞	Am.	S	<u>An</u>	<u>I/A</u>	Cell	Glass	빙	B/F	SNS SNS
	1275-2RA-19	A0211003-19	White	Flaky	2						10%			% 06	
	Comment: Joir	nt Compound: N.	AD. Rest:		Asbestos I	etected.									

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Glass

Sel Sel

An. T/A

S

Color Texture Homog. Chr. Am.

Comment: Joint Compound: NAD. Rest: NAD. No Asbestos Detected.

1275-2RA-20 A0211003-20 White Flaky No

Hygeia #

Client #

10%

80

	Sample ID	Sample	Sample Description	io u		Asbest	Asbestos Percent	ıt		Oth	Other Fibers	ibers Non - Fibe	Non	Non - Fibers
Client #	Hygeia #	Color	Texture	Homog.	CH.	Am.	S	<u>An.</u>	 ≸	Seji	Glass	비	B/F	힒
1275-2RA-21	A0211003-21	Bine	Cons.	<u>8</u>									100%	
Comment: Ti	Comment: Tile: NAD. Mastic: NAD.		No Asbestos Detected.	Detected.										
														,
Client #	Hygeia #	Color	Texture	Homog.	휭	Am.	Ce	An.	T/A	Cell	Glass	ᆼ	B/F	N N
1275-2RA-22	A0211003-22	White	Flaky	2						10%			%06	
Comment: Jo	Comment: Joint Compound: NAD. Rest: NAD. No Asbestos Detected.	(AD. Rest:	NAD. No	Asbestos	Detected.		· •							
Client #	Hygeia #	Color	<u>Texture</u>	Homog	딍	Am	Ö	An.	YI.	Cell.	Glass	빙	B/F	ONF
1275-RAR-23	A0211003-23	Black	Fibrous	2							30%		%0 2	
Comment: N	Comment: No Asbestos Detected.	ie.												
						•								
Client #	Hygeia #	Color	Texture	Homog.	SH.	Am.	<u>S</u>	₩.	T/A	Cell:	Glass	빙	B/F	SI SI
1275-RAR-24	A0211003-24	Ę	Cons.	Xes Yes									100%	
Comment: N	Comment: No Asbestos Detected.	ted.												

Client #	Hygeia #	Color	Texture	Homog.	휭	Am.	Ci Ci	-W	I/A	Ce	Glass	빙	<u>8/F</u>	ONF
1275-RAR-25	A0211003-25	Black	Gummy	2						15%			85%	
			•							2			5	5

Sample Description Sample Sampl	Slient Project	Client Project Number/Name: 7650 / Hunter AAF Bldg 1275	e: 7650 / H	unter AAF	Bldg 127;	10						Analyz	ed: 10/2	Analyzed: 10/29/2002 by CC	8	
Hygeia # Cada Texture Hornos, Or. An. An. An. Or. An. An. Or. Or. An. Or. Or. Or. An. Or. Or. Or. Or. Or. Or. Or. Or. Or. Or	Sampl	e D	Sample	Descript	lon		Aspest	tos Perce	T.	 	g	r Fibers		Non -	Fibers	
Silver layer 25% Chrysotile. Rest: NAD. Asbestos Detected. Hygeia # Color Texture Homog, Chr. Am. Cno. Cno. Cno. Cno. Cno. Cno. Cno. Cno	Client #	Hygeia #	Color	Texture	Homog.	Ch.	Am.	Cio	An.	TA	Cell.	Glass	빙	B/F	ONE	
Silver layer: 25% Chrysotile. Rest: NAD. Asbestos Detected. Hygeia # Color Texture Homog Chr. Am Cro. An T/A Cell Gless OF B/F No Asbestos Detected.	1275-RAR-26	A0211003-26	Silver	Layered	8	7%					4.4	%		%06	_	
Hygeia # Color Texture Homog, Chr, Am, Cro, An, TiA Cell, Gless OF BiF	omment: Si	iver layer: 25%	Chrysotile	Rest: NAI		os Detecte	访									
Hygeia # Color Texture Homog, Chr. Am. Cro. An. TiA Cell. Glass OF BF																
Mo Asbestos Detected. No A	Client #	Hygeia #	Color	Texture	Homog.	췽	Ħ	Cio	<u>An</u> .	T	Sel	Glass	빙	B/F	ONF	
No Asbestos Detected. Hygeia # Color Texture Homog. Chr. Am. Gro. An. T/A Cell. Glass OF B/F 3 A0211003-28 Gray Gummy No A0211003-28 Gray Gummy No S% 90% No Asbestos Detected. Hygeia # Qolor Texture Homog. Chr. An. T/A Cell. Glass OF B/F 9 A0211003-29 Black Fibrous No T/A Cro. An. T/A Cell. Glass OF B/F No Asbestos Detected. Townships Translatos T	1275-RE-27	A0211003-27	Black	Layered	2						20%			80%		
Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F A0211003-28 Gray Gummy No No Asbestos Detected.	Comment: N	Vo Asbestos Dete	C led													
No Asbestos Detected. Fibrous Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F No Asbestos Detected. No Asbestos Detected. No 20% 70%	Client #	Hygeia #	<u> </u>	Texture	Homog.	됩	Am.	CIO	<u>An.</u>	T/A	Sell	Glass	빙	B/F	ONF	
No Asbestos Detected. Hygeia # Color Texture Homog, Chr. Am, Cro. An. T/A Cell. Glass OF B/F A0211003-29 Black Fibrous No. No. Asbestos Detected.	1275-RE-28	A0211003-28	Gray	Gummy	2						2%			% %		
Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass QF B/E 9 A0211003-29 Black Fibrous No. No. An. Cro. An. T/A Cell. Glass QF B/E No Asbestos Detected.		Vo Asbestos Dete	ccted													
A0211003-29 Black Fibrous No No Asbestos Detected.	Client #	Hygeia #	3	Texture	Homog.	高	Am.	S	An.	<u>T/A</u>	Cell	Glass	씽	B/F	ONE	
	1275-RE-29	A0211003-29	Black	Fibrous	No						10%	20%		70%		
		No Asbestos Dete	cted.													

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B/F

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Glass

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Cro. An.

Homog Chr. Am.

N/A

 Client #
 Hygeia #
 Color
 Texture

 1275-3E-30
 A0211003-30
 Gray
 Powdery

Comment: No Asbestos Detected.

70%

Hygeia Project Number: A0211003 Client Project Number/Name: 7650 / Hunter	t Number: A02 Number/Name	: 7650 / Hi	unter AAF	AAF Bidg 1275	'n						P Analyz	Page: 7 of 12 Analyzed: 10/30/2002 by JC	f 12 0/2002 b	ر ا	
Sample ID	0.6	Sample	Sample Description	ion		Asbest	Asbestos Percent	<u></u>		ğ	Other Fibers		Non-	Non - Fibers	
Client #	Hygeia #	Color	Texture	Homog.	Chr.	Am.	8	An.	¥I	Sell	Glass	빙	B/F	ONF	
1275-1W-31	A0211003-31	White	Cons.	8	×1%								100%		
Comment: Tile: NAD. Mastic: 4% Chrysotile.	e: NAD. Mastic.	: 4% Chry		Asbestos Detected.	ected.						•				
Client #	Hygeia #	Color	Texture	Homog.	흥	Am.	Ci	A	ΤΆ	Sell	Glass	빙	AH.	ONF	
1275-2W-32	A0211003-32	퉏	Cons.	2	% %								%26		
Comment: Tile: 3% Chrysotile. Mastic: 4% Chrysotile. Asbestos Detected.	e: 3% Chrysotil	le. Mastic:	4% Chrys	otile. Asb	estos Dete	cted.									
Client #	Hygeia #	Color	Texture	Homog	딍	Am.	Cro.	An.	I/A	Cell	Glass	빙	B/F	ONE	
1275-28-33	A0211003-33	Æ	Flaky	욷									100%		
Comment: No	No Asbestos Detected.	cted.													
													`		
Client #	Hygeia #	Color	Texture Homog.	Homog.	된	- H	Cio	An.	T/A	Cell.	Glass	빙	B/F	ONF	
1275-28-34	A0211003-34	White	Flaky	2								el	100%		
Comment: Joint Compound: NAD. Rest: NAD. No Asbestos Detected	nt Compound: N	VAD. Rest:	NAD. No	Asbestos I	Detected.										

Comment: Bag Labeled as "1275-IE-PV" No Asbestos Detected.

1275-1E-35PV A0211003-35 Gray Powdery Yes

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Glass

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Am.

Hygeia # Color Texture Homog. Chr.

Client #

65%

Sam	Sample ID	Sample	Sample Description	io io		Ashest	Ashestos Percent	· •		Q.	Other Fihers	ihere Non Eihe	N	Non - Fihere
Client #	# diocid	rolo	Texture	 	3	4 V	3		 			2		
# 11210	14000	2	פאומו	2		i	 	ä	<u> </u>	5	200	爿		
1275-E-36PR	A0211003-36	Tan	Fibrous	8	20%		·			20%	10%		20%	
Comment:	Asbestos Detected.	-1												
Client #	Hygeia #	Se	Texture	Homog.	딍	₩	8	An.	T/A	Cell	Glass	빙	B/F	ONF
1275-E-37PR	A0211003-37	ᄺ	Fibrous	2	10%		•			30%			%09	
Comment:	Asbestos Detected.													
Client #	Hygeia #	Color	Texture	Homog.	딍	Am.	ଞ୍ଚ	Au.	TI TI	<u></u>	Glass	빙	B/F	NS NS
1275-E-38PR	A0211003-38	듇	Fibrous	S.	10%					%0%			%09	
Comment:	Asbestos Detected.							Ş						
Client #	Hygeia #	Solo	Texture	Homog.	흥	Am.	S S	An.	I/A	Sel	Glass	빙	B/F	N F
1275-EX-39	A0211003-39	Tan	Cons	SS/	% 2%								%96	
Comment:	Asbestos Detected.													

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Glass

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Chr. Am.

Color Texture Homog.

Hygeia #

Client #

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1275-EX-40 A0211003-40 Tan Cons.

Comment: Asbestos Detected.

Hygeia # Calor Texture Homos, Ohr, Am. Cro, An. Tital Calil Gless Of Birling A0211003-41 Gray Fibrous Yes A0211003-42 Brown Rubbery Yes A0211003-42 Brown Rubbery Yes A0211003-42 Brown Rubbery Yes A0211003-43 Black Gummy No 10% A0211003-43 Black Gummy No 10% A0211003-43 Black Gummy No 10% A0211003-44 Gray Fibrous Yes Gray	Samp	Sample ID	Sample	Sample Description	ion		Asbest	Asbestos Percent	¥		ğ	Other Fibers	 	Non-	Non - Fibers
Mo Asbestios Detected. Mo Asbestios Detected.	Client #		Color	Texture	Homog.	훤	Am.	CJ CJ	An.	T/A	Cell	Glass	비	B/F	ONF
No Asbestos Detected.	1275-EX-41	A0211003-41	Gray	Fibrous	Yes							40%		%09	
Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F		No Asbestos Deter	cted.												
Hygeia # Color Texture Homog, Chr. Am. Cro. An. T/A Cell. Glass OF B/F															
No Asbestros Detected.	Client #	Hygeia #	Color	Texture	Homog	ਬੁੱ	Am.	<u>S</u>	An.	¥\I	Cell	Glass	빙	B/F	N H
No Asbestos Detected, Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F A0211003-43 Black Gummy No 10% 90% Ashestos Detected. Ashestos Detected. Ashestos Detected. An. T/A Cell. Glass OF B/F Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F A0211003-44 Grav Fibrous Yes 30% 10% 50%	1275-1-42	A0211003-42	Brown	Rubbery	Yes									100%	
Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F Asbestos Detected. Asbestos Detected. Asbestos Detected. Chr. Am. Cro. An. T/A Cell. Glass OF B/F Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F		No Asbestos Deter	cted												
Asbestos Detected. Asbestos Detected. Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F A0211003-44 Grav Fibrous Yes S0%.	Client #	Hygeia #	<u> </u>	Texture	Homog.	<u>라</u>	Am.	Cro.	An.	T/A	Cell	Glass	싱	B/F	ONF
Asbestos Detected. Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F A0211003-44 Grav Fibrous Yes 50%	1275-1-43	A0211003-43	Black		2	40%								%06	
Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F A 0211003-44 Grav Fibrous Yes 50%	Somment:	Ashestos Detecte													
A0211003-44 Grav Fibrous Yes 50%	Client #	Hygeia #	Color	Texture	Homog.	뜅	Am.	S	<u>An</u>	¥I	Cell.	Glass	빙	B/F	ONF
では、100mmので	1275-1-44	A0211003-44	G Sg	Fibrous	Xes.						30%	, %0	19	20%	10%

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 Client #
 Hygeia #
 Color
 Texture
 Homog.
 Chr.
 Am.
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 1275-1-45
 A0211003-45
 Gray
 Fibrous
 Yes

Comment: Other Non-Fibers: Perlite. No Asbestos Detected.

%01

20%

10%

lient Projec	Client Project Number/Name: 7650 / Hunter AAF Bldg 1275	: 7650 / H	unter AAF	Bldg 1275							Analyz	red: 10/3	Analyzed: 10/30/2002 by CC	y CC
Sample ID	le ID	Sample	Sample Description	lou		Asbest	Asbestos Percent	Ħ		đ	Other Fibers	! 	Non	Non - Fibers
Client #	Hygeia #	Color	Texture	Homog.	Ċ	Am.	Clo	Au.	T/A	<u>e</u>	Glass	빙	B/F	Ŗ
1275-1-46	A0211003-46	Brown	Cons.	8									100%	
comment: T	Comment: Tile & Black Mastic: NAD. No Asbestos Detected.	ic: NAD.	No Asbesto	s Detected.										
Client #	Hygeia #	Color	Texture	Homog.	녊	Am.	Cio	¥.	T/A	Sel	Glass	빙	<u>B/F</u>	ONE
1275-1-47	A0211003-47	Gray	Powdery	8						30%		1 ·	70%	
Client #	Hygeia #	Solo	Texture	Homog.	녕	Am.	S	An An	¥!		Glass	빙	B/F	S
1275-1-48	A0211003-48 Gray	Gray	Plastery	, , ,									100%	
Comment:	No Asbestos Detected.	cted.												
Client #	Hygeia #	Color	Texture	Homog.	됩	Am.	Clo	An.	T/A	Sel	Glass	빙	B/F	S S
1275-1-49PR	A0211003-49	Gray	Fibrous	X88	12%					38%			20%	
Comment:	Asbestos Detected.													

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Au.

Homog, Chr. Am. Cro.

Texture

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Hygeia #

Client #

10%

χes

Fibrous

Gray

1275-1-50PR A0211003-50

Comment: Asbestos Detected.

20%

70% %

Client # Hygeia # Caba Texture Honos, Chr. Am. Gro An. I.A Gel Giess OF BF ONF 1275-1-51 Abbestor Detected. Comment: No.Asbestor Detected. Another No.Asbestor Detected. Another A	*		Sample Description	Descripti	5		Asbest	Asbestos Percent	¥	 	Oth	Other Fibers		Non -	Non - Fibers
An. TA Cell. Glass OF BJF 100% An. TA Cell. Glass OF BJF 20% An. TA Cell. Glass OF BJF 70% An. TA Cell. Glass OF BJF 70% 97%	1275-1-51	Hygeia #	Color	Texture	Homog.	Chr.	Am.	<u>S</u>	₩.	I/A	Cell:	Glass	비	B/F	S S
An. TA Cell, Glass OF B/F 100% An. TA Cell, Glass OF B/F 20% 10% 70% 97%		A0211003-51	Gray	Powdery	Yes									100%	
An. TA Cell. Glass OF BJF 100% An. TA Cell. Glass OF BJF 20% 10% 70% An. TA Cell. Glass OF BJF 97% 97%		sbestos Detec	ted.												
An. T/A Cell. Glass OF B/F 4n. T/A Cell. Glass OF B/F	· .														
100% An. T.A. Cell. Glass OF B/F 20% 10% 70% An. T.A. Cell. Glass OF B/F 97%		Hygeia #			Homog.	췽	Am.	Cio	An.	T/A	Cell.	Glass	빙	B/F	
An. T/A Cell. Glass OF B/F An. T/A Cell. Glass OF B/F 97%		A0211003-52	Brown	Cons.	2	× % %					•		·	100%	•
An. T/A Cell. Glass OF B/F 20% 10% 70% An. T/A Cell. Glass OF B/F 97%	omment: Tile:N	AD. Black M	astic: <1%	Chrysotil	e. Asbes	tos Deteci	jed.								
An. T/A Cell. Glass OF B/F 20% 10% 70% An. T/A Cell. Glass OF B/F 97%		. 6:													
20% 10% 70% An. T/A Cell. Glass OF B/F 97%			Color	Texture	Homog.	휭	Am.	<u>0</u>	An.	T\	Sel.	Glass	빙	B/F	S S
An. T/A Cell. Glass OF B/F 97%				Fibrous	%						20%		10%	%02	
Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F I A0211003-54 Tan Cons. No 3% 97%	comment: Other	Fibers: Synth	etic Fibers	s. Lineoleu	m & Mas	tic: NAD.	No Asbes	itos Deteci	ted.						
A0211003-54 Cons. No 3%		Hygeia #	Color	Texture	Homog.	5	J	S	An.	T/A	Cell	Glass	빙	B/F	O
		A0211003-54	톮	Cons	2	3%								%26	

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Texture Homog.

Color

Hygeia #

Client #

A0211003-55 Tan Cons. No

1275-1-55

Comment: Tile & Mastic: NAD. No Asbestos Detected.

100%

Non - Fibers 빙 S S R Analyzed: 10/30/2002 by CC 90% Page: 12 of 12 80% 8 띪 8 H H 띪 띪 = Other Non-Fibers = Consolidated = Other Fibers 띩 임 임 빙 Other Fibers Glass Glass Glass Glass Cons ONF 8 8 88 70% 8 10% 9 M ≰ M M = No asbestos detected = Binder / filler Ā = Mineral filler ¥ Ą Ą. = vermiculite Comment: Not on Chain of Custody, Joint Compound: NAD. Rest: NAD. No Asbestos Detected. **Asbestos Percent** = perlite S S S S NAD Am. AH. Ā Ä. B/F ver ਤ 딍 흥 흥 glass = fibrous glass = styrene foam = synthetic Client Project Number/Name: 7650 / Hunter AAF Bldg 1275 = cellulose = detected Homog. Homog. Homog. Homog. Comment: Not on Chain of Custody. No Asbestos Detected. , es 욷 2 운 Comment: Tile & Mastic: NAD. No Asbestos Detected. Sample Description Texture Cons. Texture Fibrous Texture Fibrous Texture Flaky syn sty det Black 흥 Black A0211003-59 White S ᄪ 8 8 Hygeia Project Number: A0211003 Comment: No Asbestos Detected. A0211003-58 = tremolite/actinolite A0211003-57 A0211003-56 Hygeia # Hygeia # Hygeia # Hygeia # An. = anthophyllite Cro. = crocidolite Chr. = chrysotile Sample ID Am. = amosite abbreviations: 1275-EX-58 1275-RA-59 1275-1-56 1275-1-57 Client # Client # Client # Client #

Appendix B

Sample Chain of Custody Forms

e english		DDY - US ARMY CORPS OF ENGINEERS
Project:	Hunter AAF Bldg 1275	Job No.: 7650
Sampler:	Tim Jones	Analysis: PLM

DATE	בובו ה וה	EMILID	COMPONENTS/NOTES
	FIELD ID	EMU ID	COMPONENTS/NOTES
10/21/2002	1275-1N-1	44836	Floor tile
10/21/2002	1275-1N-2	44837	Floor tile
10/21/2002	1275-1N-3	44838	Floor tile
10/21/2002	1275-1N-4	44839	Ceiling tile
10/21/2002	1275-1N-5	44840	Ceiling tile
10/21/2002	1275-1N-6	44841	Ceiling tile
10/21/2002	1275-1N-7	44842	Drywall joint compound
10/21/2002	1275-1N-8	44843	Plaster
10/21/2002	1275-1N-9	44844	"Popcorn" ceiling surfacing
10/21/2002	1275-1N-10	44845	Drywall joint compound
10/21/2002	1275-2N-11	44846	Floor joint sealer
10/21/2002	1275-2N-12	44847	Drywall joint compound
10/21/2002	1275-2N-13	44848	TSI
10/21/2002	1275-3N-14	44849	Floor tile
10/21/2002	1275-2RAM-15	44850	Floor joint sealer
10/21/2002	1275-2RAM-16	44851	Drywall joint compound
10/21/2002	1275-2RAM-17	44852	Ductwork flex joint
10/21/2002	1275-2RA-18	44853	Floor tile
10/21/2002	1275-2RA-19	44854	Drywall joint compound
10/21/2002	1275-2RA-20	44855	Drywall joint compound
10/21/2002	1275-2RA-21	44856	Floor tile
10/21/2002	1275-2RA-22	44857	Drywall joint compound

Relinquished By	Date	Time	Received By	Date	Time
Tim for	10-25-02	1425	Who offer	10/25/62	15:00
0			0		

Comments:	Fax results	to T	im Jones	@	678-354-0330
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ASBESTOS CHAIN OF CUSTODY - US ARMY CORPS OF ENGINEERS

Project:	Hunter AAF Bldg 1275	Job No.:	7650
Sampler:	Tim Jones	Analysis:	PLM

			
DATE	FIELD ID	EMU ID	COMPONENTS/NOTES
10/21/2002	1275-RAR-23	44858	Built up roofing
10/21/2002	1275-RAR-24	44859	Light weight concrete
10/21/2002	1275-RAR-25	44860	Roof flashing
10/21/2002	1275-RAR-26	44861	"Cool seal" surfacing
10/21/2002	1275-RE-27	44862	Built up roofing
10/21/2002	1275-RE-28	44863	Roofing cement
10/21/2002	1275-RE-29	44864	Roof flashing
10/21/2002	1275-3E-30	44865	Fire wall sealer
10/21/2002	1275-1W-31	44866	Floor tile
10/21/2002	1275-2W-32	44867	Floor tile
10/21/2002	1275-2S-33	44868	"Popcorn" ceiling surfacing
10/21/2002	1275-2S-34	44869	Drywall joint compound
10/21/2002	1275-1E-35PV	44870	TSI molded fitting
10/21/2002	1275-E-36PR	44871	TSI pipe run
10/21/2002	1275-E-37PR	44872	TSI pipe run
10/21/2002	1275-E-38PR	44873	TSI pipe run
10/21/2002	1275-EX-39	44874	Window glazing compound
10/21/2002	1275-EX-40	44875	Window frame caulking
10/21/2002	1275-EX-41	44876	TSI pipe jacket
10/22/2002	1275-1-42	44877	Wall insulation
10/22/2002	1275-1-43	44878	TSI pipe jacket
10/22/2002	1275-1-44	44879	Ceiling tile

Relinquished By	Date	Time	Received By	Date	Time
Tim Con	10-25-02	1405	the Talm	10/25/02	15:00
O]			

Comments:	Fax results	to	Tim	Jones	@	678-354-0330
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ASBESTOS CHAIN OF CUSTODY - US ARMY CORPS OF ENGINEERS

Project:	Hunter AAF Bldg 1275	Job No.:	7650
Sampler:	Tim Jones	Analysis:	PLM

DATE	FIELD ID	EMU ID	COMPONENTS/NOTES
10/21/2002	1275-1-45	44880	Ceiling tile
10/21/2002	1275-1-46	44881	Floor tile
10/21/2002	1275-1-47	44882	Drywall joint compound
10/21/2002	1275-1-48	44883	Plaster
10/21/2002	1275-1-49PR	44884	TSI pipe run
10/21/2002	1275-1-50PR	44885	TSI pipe run
10/21/2002	1275-1-51	44886	Plaster/drywall mud?
10/21/2002	1275-1-52	44887	Floor tile
10/21/2002	1275-1-53	44888	Sheet vinyl flooring
10/21/2002	1275-1-54	44889	Floor tile
10/21/2002	1275-1-55	44890	Floor tile
10/21/2002	1275-1-56	44891	Floor tile
10/21/2002	1275-1-57	44892	Felt paper

Relinquished By	Date	Time	Receiyed By	Date	Time
Tim Cu	10-25-02	1425	Mr Teller	10/25/02	15:06
. 0				7-7-	

Comments: Fax results to Ti	m Jones @ 678	8-354-0330		

Appendix C

Certifications

The Environmental Institute

Tim Jones

Has completed coursework and satisfactorily passed an examination that meets all criteria required for EPA / AHERA (TSCA Title II) Approved Accreditation and NESHAP Regulations Training

Asbestos in Buildings: Inspection and Assessment

February 10-12, 1997

2360 Certificate Numbe

February 12, 1997
Examination Date

February 11, 1998
Expiration Date

TEI - 1300 Williams Drive, Suite E - Marietta, Georgia 30066 - (770) 427-3600

The Environmental Institute

<u>Tim Jones</u>

Has completed coursework and satisfactorily passed an examination that meets all criteria required for EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation and NESHAP Regulations Training

Asbestos in Buildings: Inspector Refresher

February 26, 2002

Course Date

7283

February 26, 2002
Examination Date

February 25, 2003

TEI - 1300 Williams Drive, Suite E - Marietta, Georgia 30066 - (770) 427-3600

ISO 9002:1987 **ISO/IEC GUIDE 25:1990** National Institute of Standards and Technology United States Department of Commerce HYGEIA LABORATORIES, INC. Certificate of Accreditation (Z) DE SPRIMENT OF COL OF AMERICA

MARIETTA, GA

criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for: is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with

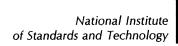
BULK ASBESTOS FIBER ANALYSIS

March 31, 2003

Effective through

Pavid F. Molerman

For the National Institute of Standards and Technology NVLAP Lab Code: 102087-0





National Voluntary Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990 ISO 9002:1987

Scope of Accreditation



Page: 1 of 1

BULK ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 102087-0

HYGEIA LABORATORIES, INC.

1300 Williams Drive, Suite A Marietta, GA 30066-6299 Mr. Clayton Call

Phone: 770-514-6933 Fax: 770-514-6966 E-Mail: call67@atc-enviro.com

NVLAP Code

Designation

18/A01

EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk

Insulation Samples

March 31, 2003

Effective through

Pavid I. alderman

For the National Institute of Standards and Technology

NVLAP-01S (11-95)





Hazardous Building Materials Survey

Building No. 1275 Hunter Army Air Field, Georgia

Prepared by Timothy A. Jones

The contents of this report are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products.

The findings of this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

Building 1275, Hunter Army Air Field, GA

by Timothy A. Jones

Final Report

Approved for public release; distribution is unlimited

Prepared for US Army Corps of Engineers Savannah District

Hazardous Building Materials Survey Report

Introduction

Background

Building No. 1275 is a 1950s vintage three-story structural concrete and masonry frame structure with multi-layered built-up asphalt and felt roof systems over structural concrete. The floor systems are structural concrete covered generally with vinyl tile. The exterior of the building has been renovated at some time and covered with a stucco material over expandable polystyrene and cloth mesh, effectively hiding the original exterior structure and hindering inspection of that original finish. The building is divided into five main sections. The center section is two stories with the first incorporating a kitchen and dining facility and the second story divided between recreational areas, storage areas, Post Office, offices, two restrooms and a mechanical room. The four remaining sections are identical three story barracks wings. The barracks rooms are laid out such that generally two sleeping quarters share one bathroom and storage room, with the exception that the two outer end sleeping rooms do not share restrooms. Each floor has a separate janitor's closet, laundry room and storage room. The uppermost floor's storage room contains an access opening to the roof of that particular wing. The roofs of the four wings are identical in appearance. Rooms on the building floor plans are arbitrarily numbered for identification in this report only as indicated on Figure 1.

Description of study

Investigation

This report documents the hazardous building materials survey of Building No. 1275 at Hunter Army Air Field, Georgia conducted on 17 October 2002 by USACE Savannah District employees Tim Jones and Mike Ruth. This survey was conducted in general accordance with the Statement of Services developed by Ray Willingham, USACE Savannah District, which includes the USAEHA guidance for demolition debris characterization by TCLP sampling.

Conclusions

The following information gathered during the survey of Building 1275 is presented in attached information:

- *a. Light Count:* The fluorescent and mercury vapor light count results are presented in Table 1.
- b. Lead Building Materials: Inspection of the building revealed lead in the plumbing drainage and vent piping system used as pipe joints. Lead flashings are used at the pipe penetrations through the roof. Details are outlined in Table 2
- c. TCLP Lead Results: Sampling of building components was performed as required and components were processed and mixed in the proper percentages and given a sample identification of HAAF B 1275 TCLP. TCLP analysis by Hygeia Laboratories indicates that lead is not present above Hygeia's reporting limit of 0.5 mg/L, and therefore is below the regulatory limit of 5 mg/L for landfill disposal. Field sampling data including component type, color, TCLP mix percentage and approximate sampling location is presented in Table 3. A scanned copy of Hygeia's analytical report is included as Appendix A.
- d. Thermostats: Two hundred and seventy-six mercury-containing thermostats were located in Building 1275, one in each barracks sleeping room and one in each laundry room.
- e. Smoke Detectors: Three hundred and twenty-four smoke detectors were located in building 1275, one in each barracks sleeping room and five in each barracks wing corridor.
- f. Transformers: One large pad mounted transformer was located on the exterior of the building near Mechanical Room D121.
- g. Compressed Refrigerant Gas: Seven window air-conditioning units were located in Building 1275; five in the barracks wings and two in the recreation area. Two rooftop refrigeration/AC units were located on the Recreation Area roof, possibly associated with kitchen equipment. Three refrigeration units were located near the rear entrance of the kitchen associated with the walk in coolers. Twelve drinking fountains were located in Building 1275, one on each floor of the barracks wings. All of these units are assumed to contain refrigerant gas that should be recovered prior to demolition.
- h. Above and Underground Storage Tanks: None of either were located associated with Building 1275.

 i. Built-in Fire suppression System: A built-in fire suppression system for the stove hoods was located containing the suppressant "Karbaloy". A copy of the MSDS sheet for this suppressant can be viewed on the web at Http://www.brooksequipment.com/MSDS/131.pdf

List of Tables	
Table 1.	Fluorescent and Mercury Vapor Light Count5
Table 2.	Lead Building Components5
Table 3.	TCLP Sampling Details6
List of Figure	es
Figure 1.	HFHH115.dgn Room Identification
Appendix	
Appendix A.	Analytical Report – Hygeia Laboratories, Inc8-12

Tables

TABLE 1 HUNTER ARMY AIR FIELD BUILDING 1275 FLUORESCENT AND MERCURY LIGHT FIXTURES

AREA IDENTIFICATION	# & TYPE LIGHTS PRESENT	DESCRIPTION OF LIGHTS
Interior	12	2 bulb, 2 foot square fluorescent fixtures
Interior	48	1 bulb, 4 foot fluorescent fixtures
Interior	675	2 bulb, 4 foot fluorescent fixtures
Interior	28	Exit Lights
Interior	76	Battery backup emergency lights

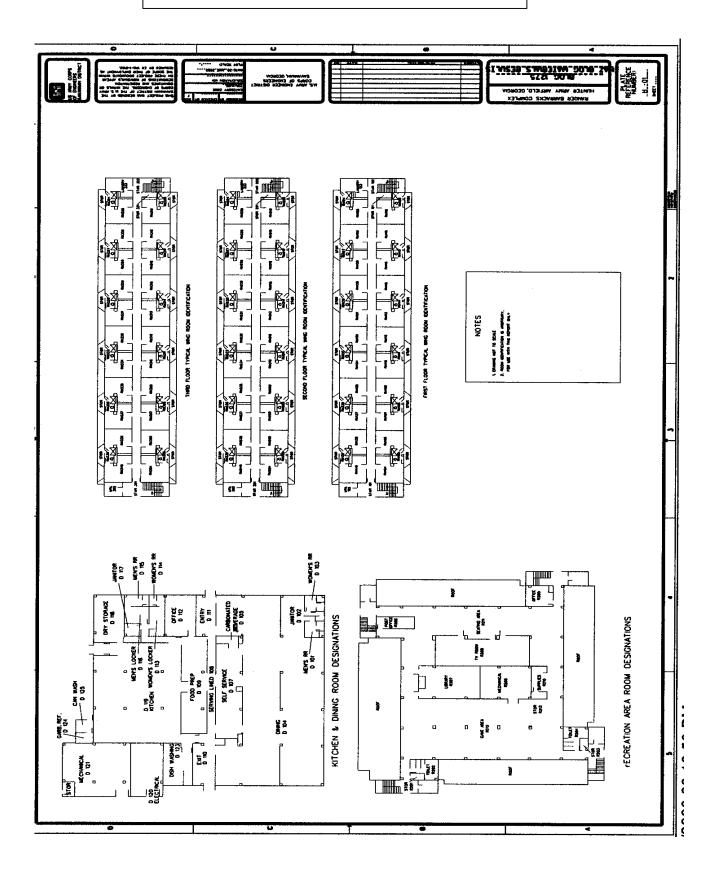
TABLE 2 HUNTER ARMY AIR FIELD BUILDING 1275 LEAD BUILDING COMPONENTS

BUILDING COMPONENT	DESCRIPTION	LOCATION	ESTIMATED NUMBER
	In plumbing	Under slab and	
Hot poured lead pipe joint	drainage, waste and		3000-4000
	vent piping	chase walls	
Lead Pipe Flashings	Roof flashing	Roof	60

TABLE 3 HUNTER ARMY AIR FIELD BUILDING 1275 TCLP COMPOSITE SAMPLE COMPONENTS

BUILDING COMPONENT	DESCRIPTION	LOCATION	PERCENTAGE OF SAMPLE
Unpainted Wood	Wall framing	Mechanical Room	26%
Interior wall covering	White painted drywall	North wing, 2 nd floor, laundry room	23%
Roofing Components	Built-up roofing membrane	Recreation Area roof	7%
Interior Floor Coverings	Floor tile	North wing, 1 st floor, corridor	10%
Block, Brick, Concrete	Tan painted block	East wing, 1 st floor stairwell wall	25%
Ceiling Material	White ceiling tile	Recreation Area, 2 nd floor	7%
Painted Wood-Interior	Brown base molding	Recreation Area, 2 nd floor	1%
Painted Wood-Exterior	Tan stucco substituted, no exterior wood present	Exterior, near mechanical room	1%

Figure 1



Appendix A

Analytical Report – Hygeia Laboratories, Inc



HYGEIA LABORATORIES, INC.

1300 Williams Drive, Suite A - Marietta, Georgia 30066-6299 - (770) 514-6933, FAX (770) 514-6966

Lab Project No.

M0210286

Report Date: 11/01/02

1 of 3

Client Name: US Army Corp of Engineers - Atlanta

Contact: Tim Jones

Address: Environmental & Materials Unit

200 North Cobb Parkway

Bldg. 400, Ste. 404

Marietta, GA 30062

Project Name: Hunter AAF Ranger Barracks Complex

Project ID: 7651

Receipt Date: 10/25/2002

Case Narrative

- 1. The sample holding times were met for all analyses.
- 2. Where applicable, results & reporting limits are based on wet weight; dry weight calculations available.
- 3. The temperature of the sample cooler as received by the laboratory was room temperature.
- 4. Hygeia Labs assumes a sampling time of 12:00 PM unless otherwise specified on the Chain of Custody.

Reviewed By:

Respectively Submitted:

Hygeia Laboratories, Inc.

Sample Identification

Lab Sample #	Client Sample ID	Sample Supply	Collected
M0210286-01	HAAF B 1275 TCLP	Bulk	10/25/02
M0210286-02	HAAF B 1276 TCLP	Bulk	10/25/02
M0210286-03	HAAF B 1412 TCLP	Bulk	10/25/02
M0210286-04	HAAF B 1413 TCLP	Bulk	10/25/02

An ATC Group Services Inc. Company

Lab Project No.

M0210286

Report Date: 11/01/02 2 of 3

TCLP Metals By ICP	Units:	mg/L (ppm)	Method #: EPA_	1311/6010B
Matrix: Leachate	Analysis Date: 10/31/2002	Prep Date:	10/29/2002	Analyst: SR
Lab Sample #: M0210286-01	Clie	nt ID: HAAF B 127	5 TCLP	
Analyte(s)	CAS#	Result	Report Limit	Flag Code
Lead	7439-92-1	BRL	0.5	
TCLP Metals By ICP	Units:	mg/L (ppm)	Method #: EPA_	1311/6010B
Matrix: Leachate	Analysis Date: 10/31/2002	Prep Date:	10/29/2002	Analyst: SR
Lab Sample #: M0210286-02	Clie	nt ID: HAAF B 127	6 TCLP	
Analyte(s)	CAS#	Result	Report Limit	Flag Code
Lead	7439-92-1	BRL	0.5	electric est contravered contrave annual est contravered contraver
TCLP Metals By ICP	Units:	mg/L (ppm)	Method #: EPA_	1311/6010B
Matrix: Leachate	Analysis Date: 10/31/2002	Prep Date:	10/29/2002	Analyst: SR
Lab Sample #: M0210286-03	Clie	nt ID: HAAF B 141	2 TCLP	
Analyte(s)	CAS#	Result	Report Limit	Flag Code
Lead	7439-92-1	BRL	0.5	******
TCLP Metals By ICP	Units:	mg/L (ppm)	Method #: EPA_	1311/6010B
Matrix: Leachate	Analysis Date: 10/31/2002	Prep Date:	10/29/2002	Analyst: SR
Lab Sample #: M0210286-04	Clie	nt ID: HAAF B 141	3 TCLP	
	CAS#	Result	Report Limit	Flag Code

M0210286

Report Date: 11/01/02

3 of 3

NOTES:

- Results relate only to the samples tested as received (See Chain-of-Custody).
- BRL = "Below Reporting Limit"
- RL = "Reporting Limit"
- E = "Estimated Result"
- Dates are presented in the format "month/day/year"

Certifications

Alabama - Lab ID 40970; Arkansas; Connecticut - No. PH 0208; Defaware - GA040; Georgia - No. 804; Indiana - Lab ID C-GA-01 Kentucky - Lab ID 90053, UST - No. 0005; Louisiana; Maryland - No. 293; Massachussetts No. M - GA040; North Carolina - No. 409 Rhode Island, License No. 245; South Carolina - No. 98012001; Tennessee - Lab ID 02827; Virginia - Lab ID 00024 South Carolina - No. 98012; Tennessee - Lab ID 02827 (DW), UST Program; Virginia - Lab ID 0024

Accreditations

American Association for Laboratory Accreditation, A2LA - No. 330.01; American Industrial Hygiene Association, AIHA - Lab ID 100649; NELAC - State of Florida DOH, No. E87257

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US Army Corps of Engineers Savannah District

Chain of Custody Record ${\cal M}\,\partial 210286$

13 wilding Composite Matrix lements: Fax Results to TAT Zdays 678-354-0330 36840 h684h 968.61 Tim Jones RT, ML SAD No. [45# S **ZA** 37 Ş 9:10 Date/Time 10-25-02 Date/Time Date/Time 397 7 $\alpha_{\!\scriptscriptstyle c}$ Ø b ď, Date/Time 1435 Received by: (sig) leceived by: (sig) (NO PERCENT) RE HAAF B 1276 TCLP HAPF B 1375 TOLD HAAF B 1412 TCLP HAAF BI413 TCLP Hunter AAF Rouger Borrocks Compley REPORT IN PPM Site Code/Sample Number Date/Time Date/Time 3 Environmental & Materials Unit Pres. Relinquisher by: [sig] Ĭ, elinquished by: (sig) telinquished by: (sig) 10-25-02





Asbestos Survey

Building No. 1276 Hunter Army Air Field, Georgia

Prepared by Timothy A. Jones

The contents of this report are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products.

The findings of this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

Asbestos Survey January 2003

Building No. 1276 Hunter Army Air Field, Georgia

by Timothy A. Jones

Final report

Approved for public release; distribution is unlimited

Asbestos Inspection Report

Introduction

Scope of the Investigation

This report documents the asbestos inspection and survey of Building No.1276 at Hunter Army Air Field; Georgia conducted 21-22 October 2002 by Savannah District US Army Corps of Engineers employees Tim Jones, and Mike Ruth. The survey was conducted in general accordance with the regulatory guidelines in the Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763 Subpart E Sections 763.80-763.88) and "Guidance for Controlling Asbestos-Containing Materials in Buildings" (Purple Book) (EPA publication number 560/5-85-024). Although not required by the AHERA guidelines, roof and other exterior miscellaneous materials were also inspected and sampled.

Background

Building No. 1276 is a 1950s vintage three-story structural concrete and masonry frame structure with multi-layered built-up asphalt and felt roof systems over structural concrete. The floor systems are structural concrete covered generally with vinyl tile. The exterior of the building has been renovated at some time and covered with a stucco material over expandable polystyrene and cloth mesh, effectively hiding the original exterior structure and hindering inspection of that original finish. The building is divided into five main sections. The center section is two stories with the first incorporating office/storage space and the second story divided between recreational areas, storage areas, Post Office, offices, two restrooms and a mechanical room. The four remaining sections are identical three story barracks wings. The barracks rooms are laid out such that generally two sleeping quarters share one bathroom and storage room, with the exception that the two outer end sleeping rooms do not share restrooms. Each floor has a separate janitor's closet, laundry room and storage room. The uppermost floor's storage room contains an access opening to the roof of that particular wing. The roofs of the four wings are identical in appearance. Rooms on the building floor plans are arbitrarily numbered for identification in this report only as indicated on Figures 1-3.

Description of study

Investigation

All accessible areas of Building No. 1276 were visually inspected for suspected asbestos containing materials (ACM) by accredited inspectors, with the exception of the identical barracks sleeping rooms which were randomly inspected. Bulk samples of all suspected ACM's were collected. Sample locations are indicated on the floor plan Figures. Individual Figures are presented for the center hub sections of the building. Typical floor plans are presented to represent the four barracks wings and the sample numbers represent the wing and floor numbers as well as the numerical sequential sample number. An example is sample 1276-1N-2 indicates building 1276, first floor North wing, sequential sample number 2. This report details ACM as identified at the time of inspection only.

The bulk samples were analyzed by Hygeia Laboratories, Inc. Hygeia is accredited by the National Voluntary Laboratory Accredited Program (NVLAP Accreditation sponsored by the National Institute of Standards and Technology (NIST)). Copies of their accreditation certificates are included in Appendix C. The samples were analyzed by the accepted method of polarized light microscopy (PLM) using EPA's "Method For the Determination of Asbestos In Bulk Building Materials", EPA/600/R-93/116. Hygeia's analytical report is included in Appendix A.

In compliance with the AHERA regulations, material is considered an Asbestos Containing Material (ACM) when it contains greater than one percent asbestos. Likewise, in this report, any material containing concentrations greater than one percent asbestos will be considered "positive". Occasionally, materials containing less than one percent asbestos are assumed to be a "positive" asbestos containing material at the discretion of the inspectors. A narrative discussion of the AHERA ACM types (i.e., thermal systems insulation, miscellaneous and surfacing materials) found in Building No. 1276 is included in this report where relevant. Bulk sample information appears on Table 1. Estimated quantities of individual asbestos containing materials appear on Table 2. Material characterization of asbestos containing materials appears on Table 3. The specific location where each bulk sample was obtained is shown on the building floor plans, which appear as Figures. Positive ACM samples are highlighted on the floor plan Figures and, where possible, locations of positive ACM are identified. It is reasonable to assume that all materials similar to those testing positive, also contain positive amounts of asbestos and should be treated as such.

Analysis

Thermal Systems Insulation (TSI)

TSI is insulation material applied to pipes, fittings, tanks, ducts, or for other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.

- a. TSI Domestic Water Piping: The majority of pipe runs of the domestic water system throughout the building, with the exception of the majority of the first floor Mechanical Room A120, contain asbestos. Some TSI debris was noted in the pipe pit within the Mechanical Room A120 and is assumed to contain asbestos. The pipe run TSI material is typically approximately one-inch thick corrugated paper type with layers of friable white asbestos materials within. The molded fittings on the domestic water piping, though testing negative, are assumed to contain asbestos due to their proximity and binding with the pipe run insulation. In some small areas the insulation has been removed or replaced, however for estimation purposes within this report, the insulation is assumed to remain. Plumbing chases in the barracks sleeping area restrooms were inaccessible for inspection and the water piping within is assumed to contain similar asbestos containing insulation. The outer dimensions of this asbestoscontaining TSI typically ranges from 3-5 inches. The domestic water piping within the first floor Mechanical Room A120 appears to have been replaced with newer fiberglass TSI -(Refer to Tables 1, 2 and 3 for specific information and Figures for sample locations and homogeneous area locations).
- b. TSI HVAC Water Piping: The HVAC hot, cold and dual temperature water piping throughout the building is of fiberglass or rubber non-ACM material.
- c. TSI Underground HVAC Piping: The insulation on the steam and condensate piping within the exterior valve pit and underground from the pit to Building 1276 contains asbestos. This material is white pre-formed block insulation of approximately 12" diameter. The mastic sealer over the joints and ends of the foam-glass insulation on the dual temperature water lines in the exterior valve pit and underground from the pit to Building 1276 contains. Debris from the material may be found in the pit inside Mechanical Room A120 where the steam and condensate piping system enters the building. The valve pits are located to the west of the west barracks wing.-(Refer to Tables 2 and 3 for specific information).
- d. TSI Storm Drainage Piping: The pipe runs and fittings on much of the storm drainage piping from the roof drains on the interior of the building contain asbestos. This material is typically one to one and a half inch thick, 8"OD white friable material. Molded fitting material tested in Building 1276 was found to be non-asbestos containing, but will be assumed positive due to proximity and

attachment to friable asbestos pipe run material. Some material on the second floor Recreation Area piping appears to be replaced with newer fiberglass material. Material in chases is assumed to be similar asbestos containing insulation. Insulation on all of the exterior storm drain piping appears to have been replaced with fiberglass material. There are three roof drains per typical barracks wing. The piping was not located and must be concealed within chases, however it is assumed that it is covered with asbestos-containing TSI material. - (Refer to Tables 2 and 3 for specific information and Figures for homogeneous area locations).

Miscellaneous Materials

Miscellaneous materials include building material on structural components, structural members or fixtures, such as floor and ceiling tiles, and do not include surfacing or TSI.

In the past, there were a great number of miscellaneous building materials that had asbestos fibers added to them during the manufacturing process to increase durability and fireproofing qualities. The following suspect miscellaneous materials at Building No. 1276 were found to contain or were assumed to contain asbestos:

- a. Floor Tiles And Mastic: 12" X 12" floor tiles and associated mastic throughout the majority of Building 1276 contain or assumed to contain asbestos. 12" X 12" tan/gray floor tile & mastic, 12" X 12" light gray floor tiles and mastic, and 12" X 12" tan/green floor tiles & mastic all in the first floor administrative areas all contain asbestos. 12" X 12" beige/brown/white typical floor tiles and mastic in the Recreation Area both contain asbestos. 12" X 12" brown/tan/white floor tiles in the corridors of the barracks wings were non-asbestos, however their associated mastic contains asbestos. 12" X 12" beige patterned floor tiles and their associated mastic typical in the barracks sleeping rooms both contain asbestos. Small areas of patch tiles located in several areas were non-asbestos but quantities are insignificant. -(Refer to Tables 1, 2 and 3 for specific information and Figures for sample locations and homogeneous area locations).
- b. Floor Joint Sealer: Black Floor joint sealer in the many of the Storage Rooms associated with the barracks rooms contains asbestos. This material is typically 12" wide and ¼" thick. -(Refer to Tables 1, 2 and 3 for specific information and Figures for sample locations and homogeneous area locations).

- c. Window Glazing Compound: Window glazing compound applied to the windows in the vicinity of the first floor Mechanical Room A120 is assumed to contain asbestos based on positive samples from building 1275. The remainder of the windows has been replaced with newer aluminum frame components and is non-asbestos containing. -(Refer to Tables 2 and 3 for specific information and Figures for homogeneous area location).
- d. Window Caulking Compound: Caulking compound around the metal window frame at the first floor Mechanical Room A120 is assumed to contain asbestos based on positive samples from building 1275. -(Refer to Tables 2 and 3 for specific information and Figures for homogeneous area locations).
- e. Fire Rated Doors: Fire rated doors were not sampled, with the exception of the Mechanical Room A120, since destruction of the door would be required. As a result, all such doors are assumed to be asbestos containing. Approximately one hundred and eighteen doors of seven types are listed in the door schedule on as built drawing dated 1979 Plate A17 from the Barracks Modernization project of that time frame. It is suggested that one door of each type be inspected at demolition to determine if asbestos is present. -(Refer to Tables 1, 2 and 3 for specific information Figures for sample location and homogeneous area locations).
- f. Gaskets: Gaskets between flanges in the mechanical piping systems are assumed to contain asbestos. The majority of these will be found in Mechanical Room A120 and are not indicated on a floor plan Figure.

Surfacing Materials

Surfacing material is friable material that is sprayed on, troweled on, or otherwise applied to surfaces for decorative or other purposes.

a. No asbestos-containing surfacing material was identified at Building 1276.

Conclusions

The following materials found at Building No. 1276 contain or are assumed to contain positive amounts of asbestos:

a. Floor Tile & Mastic: Floor tiles and or mastic throughout Building 1276 contain asbestos.

- b. Floor Joint Sealer: Floor joint sealer in many of the barracks store rooms contains asbestos
- c. TSI Pipe Insulation: TSI pipe run and fitting insulation on the domestic water piping within the main building contains asbestos. TSI pipe run and fitting insulation on portions of the storm drainage piping system inside the building contains asbestos. TSI debris within the pipe pit in Mechanical Room A120 is assumed to contain asbestos. TSI pipe run and fitting material on the steam and condensate lines in the exterior valve pit and underground to the building is assumed to contain asbestos. TSI mastic on the joints and seams of the dual temperature water piping in the valve pit and underground is assumed to contain asbestos.
- d. Window Glazing Material: Window glazing material on windows near the first floor Mechanical Room A120 is assumed to contain asbestos.
- e. Window Caulking Material: Window caulking material on the window frame at the first floor Mechanical Room A120 window is assumed to contain asbestos.
- f. Fire Rated Doors: Fire rated doors are assumed to contain asbestos.
- g. Gaskets: Gaskets within the mechanical piping systems are assumed to contain asbestos.

List of Ta	bles
Table 1.	Suspect ACM Samples8-11
Table 2.	ACM Quantity Summary
Table 3.	Material Characterization and Assessment
List of Fig	rures
Figure 1.	HFHH105.dgn – Admin. Area Survey Results
Figure 2.	HFHH106.dgn – Recreation Area Survey Results
Figure 3.	HFHH107.dgn – Rec. Area & Barracks Wing Roof Survey Results . 18
T' 4	
Figure 4. Appendice	HFHH108.dgn – Barracks Wings Survey Results
Appendice	
Appendice	A. Analytical Report – Hygeia Laboratories, Inc20-37

TABLE 1 SUSPECT ACM SAMPLES HUNTER ARMY AIRFIELD, BUILDING 1276

FIELD ID	DESCRIPTION	LOCATION	ASBESTOS TYPE &
1276-M-1PR	TSI Pipe run insulation	Mechanical Room A120	15% chrysotile
1276-M-2PE	TSI pipe fitting insulation	Mechanical Room A120	None
1276-M-3	Gypsum wall board	Mechanical Room A120	None
1276-M-4	Fire door insulation	Mechanical Room A120	None
1276-E-5PR	TSI Pipe run insulation	Electrical Room A121	15% chrysotile
1276-E-6PR	TSI Pipe run insulation	Electrical Room A121	15% chrysotile
1276-E-7PR	TSI Pipe run insulation	Electrical Room A121	15% chrysotile
1276-E-8PE	TSI pipe fitting insulation	Electrical Room A121	None
1276-E-9PE	TSI pipe fitting insulation	Electrical Room A121	None
1276-1W-10	12" X 12" tan/brn/white floor tile & mastic	West wing, first floor corridor	None
1276-1W-11	2' X 4' ceiling tile	West wing, first floor corridor	None
1276-1W-12	2' X 4' ceiling tile	West wing, first floor corridor	None
1276-1W-13	2' X 4' ceiling tile	West wing, first floor corridor	None
1276-1W-14	"Popcorn" ceiling surfacing	West wing, first floor Laundry Room	None
1276-1W-15	Drywall joint compound	West wing , first floor Laundry Room wall	None
1276-1W-16	Drywall joint compound	Room 104 wall, west wing	None
1276-1W-17	12" X 12" white/gray floor tile & mastic	Room 104, west wing	Tile 2% chrysotile, mastic 3% chrysotile

1276-1W-18	Drywall joint	Room 140 wall, west wing	None
	compound		
1276-1W-19	12" X 12" brick	Room 129, west wing	None
	pattern floor tile		
	& mastic		
1276-1W-20	Drywall joint	Storage room wall at Room	None
	compound	114, West wing	
1276-1W-21PR	TSI Pipe run	Room 126 ceiling, west	40% chrysotile
	insulation	wing	
1276-1W-22PE	TSI pipe fitting	First floor corridor ceiling,	None
	insulation	west wing	
1276-2W-23	Drywall joint	Room 225 wall, west wing	None
	compound		
1276-2W-24	12" X 12"	Room 229, west wing	Tile & mastic 4%
	white/gray floor		chrysotile
	tile 7 mastic		
1276-1S-25	12" X 12"	First floor corridor, south	Tile NAD, mastic 4%
	brn/tan/white	wing	chrysotile
	floor tile &		•
	mastic		
1276-1S-26	Plaster	Room 139 wall, south wing	None
1276-1S-27	Drywall joint	Room 109 wall, south wing	None
	compound	8	
1276-1S-28	"Popcorn" ceiling	First floor Laundry room	None
	surfacing	ceiling, south wing	
1276-2S-29	"Popcorn" ceiling	Second floor Laundry room	None
12/02029	surfacing	ceiling, south wing	
1276-2S-30	12" X 12"	Room 218, south wing	Tile 2% chrysotile,
1270 25 00	brn/tan floor tile	Troom 210, south Wing	mastic 3% chrysotile
	& mastic		
1276-RS-31	Roof flashing,	South wing roof	None
1270 10 51	silver coated	South wing roof	Tione
1276-RS-32	Built-up roofing	South wing roof	None
1276-RS-33	Roof insulation	South wing roof	None
1276-RS-34	Light weight	South wing roof	None
1270 105 5	cement		Tions
1276-1E-35	12" X 12"	First floor corridor, east	Tile NAD, mastic 2%
1270 12 00	brn/tan/white	wing	chrysotile
	floor tile &	, , , , , , , , , , , , , , , , , , ,	
	mastic		
1276-2E-36	"Popcorn" ceiling	Second floor Laundry room	None
1270 22 30	surfacing	ceiling, east wing	
1276-2E-37	Drywall joint	Closet wall at Room 224,	None
12/0 21 3/	compound	east wing	Tione
1276-2E-38	Floor joint sealer	Closet floor at Room 227,	<1% chrysotile
12/0-21-30	1 1001 juille scalet	east wing	1 /0 cm ysome
		Cast wing	

1276-3E-39	Caulking material	Room 318 CMU wall, east wing	None
1276-1N-40	12" X 12"	Entryway to first floor	None
1270 110	terrazzo patterned	corridor, north wing	Tione
	floor tile &	corridor, north wing	
	mastic		
1276-1N-41	Drywall joint	Storage room wall at Room	None
12/0 11(11	compound	103, north wing	
1276-1N-42	12" X 12"	Room 138, north wing	5% chrysotile
	brn/off white	Troom 100, north wing	
	floor tile &		
	mastic		
1276-1N-43	"Popcorn" ceiling	First floor Laundry room	None
	surfacing	ceiling, north wing	
1276-1N-44	Drywall joint	First floor Laundry room	None
	compound	wall, north wing	
1276-2N-45	12" X 12"	Room 228, north wing	None
	blue/black floor	3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3	
	tile & mastic		
1276-3N-46	Floor joint sealer	Storage room floor at	3% chrysotile
	•	Room 339, north wing	
1276-RN-47	Flashing cement	North wing roof	None
1276-RN-48	Built-up roofing	North wing roof	None
1276-RN-49	Roof flashing,	North wing roof	None
	silver coated		
1276-RA-50	12" X 12"	Room R 211	Tile 5% chrysotile,
1			4'- (0/ -14'1-
	brn/white/tan		mastic 6% chrysotile
	floor tile &		mastic 6% enrysottle
	floor tile & mastic		,
1276-RA-51	floor tile & mastic Drywall joint	Room R 211 wall	None None
1276-RA-51	floor tile & mastic Drywall joint compound		None
1276-RA-51 1276-RA-52	floor tile & mastic Drywall joint compound Duct flex joint	Room R 209	,
1276-RA-51	floor tile & mastic Drywall joint compound Duct flex joint Black ceiling		None
1276-RA-51 1276-RA-52 1276-RA-53	floor tile & mastic Drywall joint compound Duct flex joint Black ceiling adhesive	Room R 209 Room R 212	None None None
1276-RA-51 1276-RA-52	floor tile & mastic Drywall joint compound Duct flex joint Black ceiling adhesive Drywall joint	Room R 209	None None
1276-RA-51 1276-RA-52 1276-RA-53 1276-RA-54	floor tile & mastic Drywall joint compound Duct flex joint Black ceiling adhesive Drywall joint compound	Room R 209 Room R 212 Room R 212 wall	None None None None
1276-RA-51 1276-RA-52 1276-RA-53	floor tile & mastic Drywall joint compound Duct flex joint Black ceiling adhesive Drywall joint compound 12" X 12"	Room R 209 Room R 212	None None None
1276-RA-51 1276-RA-52 1276-RA-53 1276-RA-54	floor tile & mastic Drywall joint compound Duct flex joint Black ceiling adhesive Drywall joint compound 12" X 12" brn/tan/white	Room R 209 Room R 212 Room R 212 wall	None None None None
1276-RA-51 1276-RA-52 1276-RA-53 1276-RA-54	floor tile & mastic Drywall joint compound Duct flex joint Black ceiling adhesive Drywall joint compound 12" X 12" brn/tan/white floor tile &	Room R 209 Room R 212 Room R 212 wall	None None None None
1276-RA-51 1276-RA-52 1276-RA-53 1276-RA-54 1276-RA-55	floor tile & mastic Drywall joint compound Duct flex joint Black ceiling adhesive Drywall joint compound 12" X 12" brn/tan/white floor tile & mastic	Room R 209 Room R 212 Room R 212 wall Room R 211	None None None None Some None
1276-RA-51 1276-RA-52 1276-RA-53 1276-RA-54 1276-RA-55	floor tile & mastic Drywall joint compound Duct flex joint Black ceiling adhesive Drywall joint compound 12" X 12" brn/tan/white floor tile & mastic Roof flashing	Room R 209 Room R 212 Room R 212 wall Room R 211 Recreation Area roof	None None None Some None None None None
1276-RA-51 1276-RA-52 1276-RA-53 1276-RA-54 1276-RA-55 1276-RA-56 1276-RA-57	floor tile & mastic Drywall joint compound Duct flex joint Black ceiling adhesive Drywall joint compound 12" X 12" brn/tan/white floor tile & mastic Roof flashing Built-up roofing	Room R 209 Room R 212 Room R 212 wall Room R 211 Recreation Area roof Recreation Area roof	None None None Some None None None None None None
1276-RA-51 1276-RA-52 1276-RA-53 1276-RA-54 1276-RA-55	floor tile & mastic Drywall joint compound Duct flex joint Black ceiling adhesive Drywall joint compound 12" X 12" brn/tan/white floor tile & mastic Roof flashing	Room R 209 Room R 212 Room R 212 wall Room R 211 Recreation Area roof	None None None Some None None None None

1276-RA-60	Roof flashing, rolled roofing style	Recreation Area roof	None
1276-RA-61	Roof flashing, silver coated	Recreation Area roof	None
1276-1-62	12" X 12" tan/gray floor tile & mastic	Room A 108	5% chrysotile
1276-1-63	12" X 12" lt. Gray floor tile & mastic	Room A 111	Tile NAD, mastic 2% chrysotile
1276-1-64	12" X 12" tan/green floor tile & mastic	Room A 111	Tile 2% chrysotile, mastic NAD
1276-1-65	12" X 12" lt. Brown floor tile & mastic	Room A 111	None
1276-1-66	Drywall joint compound	Room A 110 wall	None
1276-1-67	Drywall joint compound	Room A 104 wall	None
1276-1-68	Drywall joint compound	Room a 111 wall	None
1276-1-69PR	TSI Pipe run insulation	Room B 110	3% chrysotile
1276-1-70PR	TSI Pipe run insulation	Room B 110	6% chrysotile
1276-1-71PR	TSI Pipe run insulation	Room B 110	7% chrysotile
1276-1-72	Drywall joint compound	Room B 110 wall	None
1276-1-73	Drywall joint compound	Room B 111 wall	None
1276-1-74	Gypsum wall board	Room B 111 wall	None
1276-RX-75	Felt paper	Building exterior, under stucco	None
1276-VP-76	TSI Pipe run insulation	Steam pipe pit, near west wing	20% chrysotile
1276-VP-77	Insulation mastic	HVAC water pipe pit, near west wing	8% chrysotile

Samples testing positive for asbestos indicated in **BOLD** type NAD = No Asbestos Detected

TABLE 2 ACM QUANTITY SUMMARY HUNTER ARMY AIRFIELD, BUILDING 1276

					A	rea Descrip	tions		
Material Description	UNITS	EXTERIOR WIMDOW FRAMES	ADMINISTR- ATIVE AREA	RECREATION AREA	TYPICAL BARRACKS WINGS	RECREATION AREA ROOF	MECHANICAL ROOMS		TOTALS
Caulking Material	L.F.	125							125
Window Glazing Compound	L.F. 1" Wide	250							250
Floor Tile & Mastic	S.F.		3,714	9,130	56,892				69,736
Floor Joint Sealer	S.F.				1,408				1,408
Fire Rated Doors	EA				118				118
Gaskets	Ea.						100		100

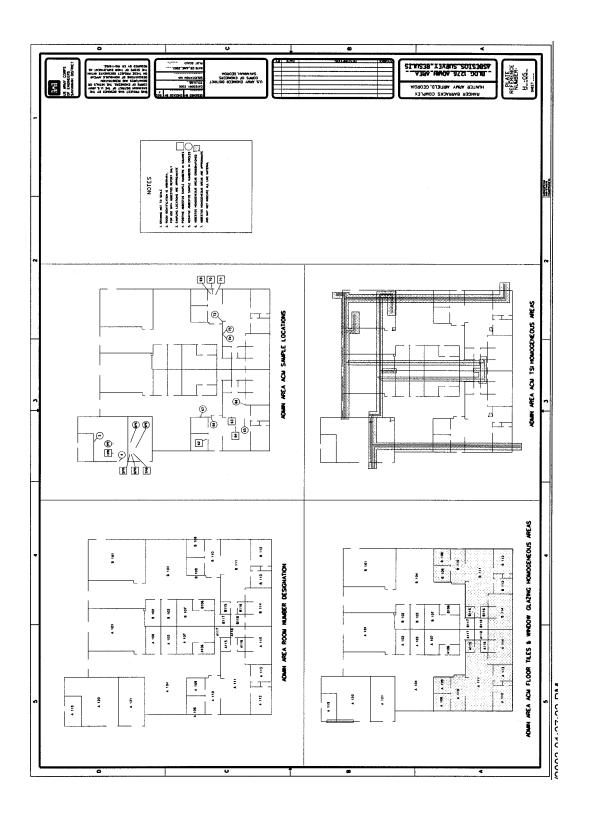
					A	rea Descrip	tions		
Material Description	UNITS	ADMINISTRATIVE AREA	RECREATION AREA	TYPICAL BARRACKS WINGS	RECREATION AREA ROOF	MECHANICAL ROOM A120	ELECTRICAL ROOM A121	VALVE PITS & UNDERGROUND	TOTALS
3" OD TSI Pipe Run	L.F.	644	40	6724			40		7448
3" OD TSI Pipe Fittings	Ea.	50		3585			15		3650
TSI 4" Pipe Run	L.F.	30		224					254
TSI 4" Pipe Fittings	Ea.	37		100					137
TSI 5" Pipe Run	L.F.	968	40	4740			80		5784
TSI 5" Pipe Fittings	Ea.	50		460			20		530
TSI 8" Pipe Run	L.F.	40	60	360		20			480
TSI 8" Pipe Fittings	Ea.		8	24		2			34
TSI Mastic	L.F.							730	730
TSI 12" Pipe Run	L.F.							720	720

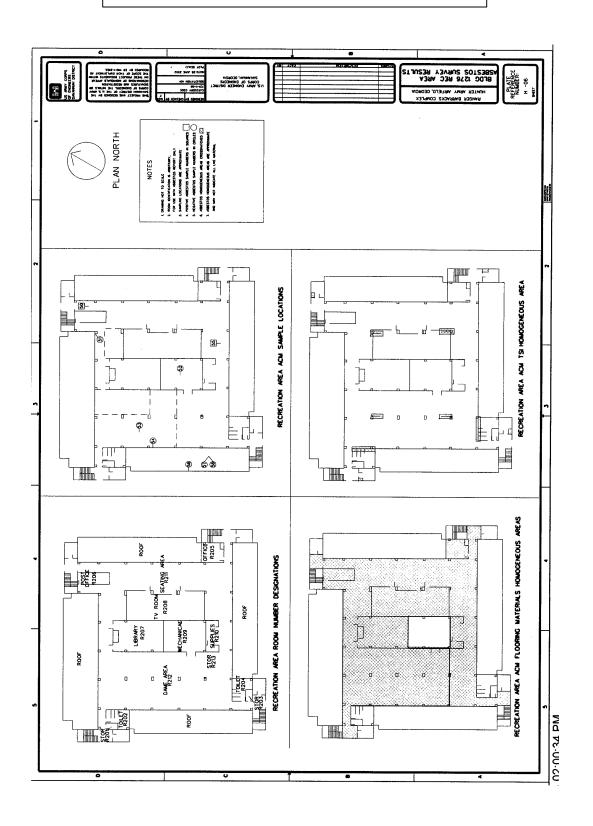
TABLE 3
MATERIAL CHARACTERIZATION AND ASSESSMENT
HUNTER ARMY AIRFIELD, BUILDING 1276

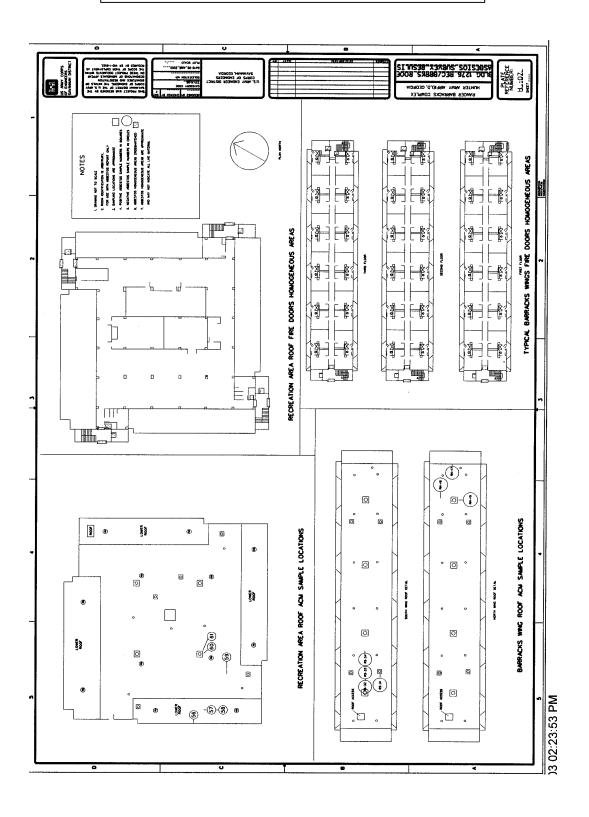
MATI	ERIAL	CHA	RACTERIS	ΓICS	ASSI	ESSMENT
Туре	Description	Asbestos Yes/No/Assumed	Quantity (If ACM)	Friable / Non- friable	Condition	Disturbance Potential
TSI	3" OD TSI Pipe Run	Yes 15-40%	7448 L.F.	Friable	Damaged	Moderate
TSI	3" OD TSI Pipe Fittings	Assumed	3650 Ea.	Friable	Damaged	Moderate
TSI	4" OD TSI Pipe Run	Yes 15%	254 L.F.	Friable	Damaged	Moderate
TSI	4" OD TSI Pipe Fittings	Assumed	137 Ea.	Friable	Damaged	Moderate
TSI	5" OD TSI Pipe Run	Yes 15%	5784 L.F.	Friable	Damaged	Moderate
TSI	5" OD TSI Pipe Fittings	Assumed	530 Ea.	Friable	Damaged	Moderate
TSI	8" OD TSI Pipe Run	Yes 15%	120 L.F.	Friable	Damaged	Moderate
TSI	8" OD TSI Pipe Fittings	Assumed	10 Ea.	Friable	Damaged	Moderate
Miscellaneous	Gaskets	Assumed	100 Ea.	Non-friable	Good	Low
Miscellaneous	Caulking Material	Assumed	125 L.F.	Non-friable	Damaged	Moderate
Miscellaneous	Window Glazing	Assumed	250 L.F.	Friable	Significantly damaged	High
Miscellaneous	Floor Tile & Mastic	Yes 2-6%	69,736 S.F.	Non-friable	Damaged	Moderate

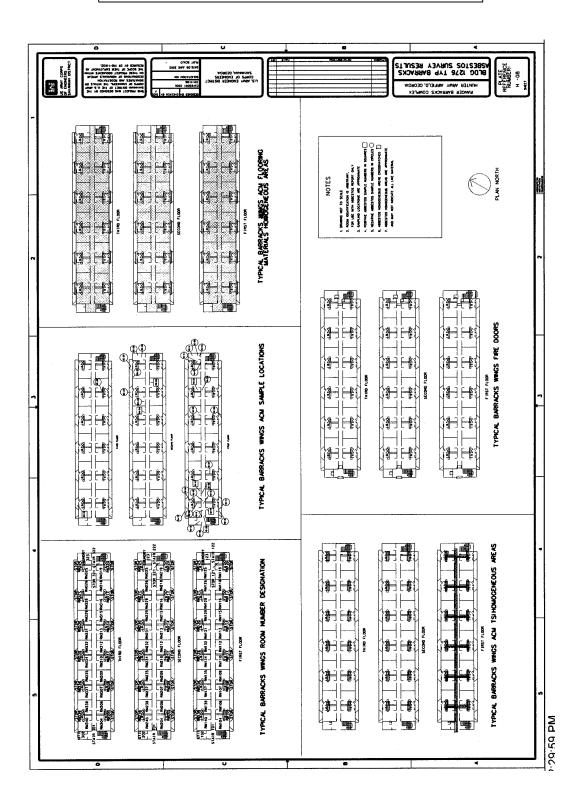
Miscellaneous	Floor Joint	Yes 3%	1,408	Non-friable	Good	Low
	Sealer		S.F.			
Miscellaneous	Fire Rated	Assumed	118 Ea.	?	Good	Low
	Doors					

S.F. = Square Foot, L.F. = Linear Foot, C.F. = Cubic Foot









Appendix A

Analytical Report - Hygeia Laboratories, Inc.



HYGEIA LABORATORIES, INC.

1300 Williams Drive, Suite A - Marietta, Georgia 30066-6299 - (770) 514-6933, FAX (770) 514-6966

US Army Corp of Engineers Environmental & Materials Unit 200 North Cobb Parkway Bldg. 400, Ste. 404 Marietta, GA 30062 11/5/2002

Subject:

Hygeia Project Number: A0211016 Client Project Number/Name: 7649 /Hunter Bldg 1276

Dear Mr. Tim Jones:

Enclosed are the analytical results of bulk samples submitted by you to this laboratory on 11/4/2002. All analyses were performed by polarized light microscopy (PLM) in accordance with the EPA method as defined in Perkins and Harvey, July 1993, "Methods for the Determination of Asbestos in Bulk Materials" 61pp. (EPA/600/R-93/116). The reported percentages are volume estimates obtained by calibrated visual estimation. The results in this report apply only to the items tested.

The EPA defines an asbestos containing material (ACM) as a material that is reported to contain greater than one percent asbestos. HYGEIA is only responsible for the accuracy of the analytical results provided in this report and cannot be held responsible for the errors resulting from improper sample collection techniques. This report may not be used to claim product endorsement by NVLAP or any other U.S. Government agency.

For nonhomogeneous samples, each layer was analyzed separately and the results combined to form the reported value except where otherwise noted. Vinyl floor tile samples with negative results by PLM should be submitted for confirmation by transmission electron microscopy (TEM). Friable samples containing less than 10% asbestos as determined by PLM may be resubmitted for point counting at your discretion.

Thank you for using our analytical services. HYGEIA Laboratories has been NVLAP accredited since 1988. Our current NVLAP code is 102087-0. We will keep a copy of this report on file for three years. We will dispose of your samples in 60 days unless you request that we return them. This report my be reproduced only in its entirety with the consent of Hygeia Laboratories, Inc. If you have any questions, please call us at (770) - 514-6933.

Sincerely,

Clayton Call Asbestos Laboratory Manager

> NVLAP# Texas Dept. of Health #

102087-0 30-0232

Commonwealth of Virginia # 3333-000210

An ATC Group Services Inc. Company

Client Project	Hygeia Project Number: A0211016	1016	· · · · · · · · · · · · · · · · · · ·									Page: 1 of 16	of 16	
Sample ID	Client Project Number/Name: 7649 / Hunter Bldg 1276 Sample ID Sample Description	7649 / Hu Sample	649 / Hunter Bldg 127 Sample Description	1276 ion		Asbesi	Asbestos Percent	Ħ		Ö	Analy Other Fibers	/zed: 10/	Analyzed: 10/30/2002 by WAS ibers Non - Fibers	y WA Fibe
Client #	Hygeia #	Color	Texture	Homog.	SH.	Am.	S	¥	T\\	≣	Glass	비	B/F	NS NS
1276-M-1PR	A0211016-01	Mulfi	Fibrous	S S	15%					30%			22%	
Comment:	Comment: Asbestos Detected													
Client #	Hygeia #	Color	Texture	Homog.	高	튀	흥	Æ	¥.	Sell	Glass	빙	B/F	No.
1276-M-2PE	A0211016-02	Brown	Fibrous	Yes						30%	30%		40%	
Comment:	Comment: No Asbestos Detected	j												
Client #	Hygeia #	Color	Texture	Нотод	칭	Am.	읭	-W	T/A	- III	Glass	비	B/F	NO F
1276-M-3	A0211016-03	White	Cons.	Xes.						30%			%02	
Comment:	Comment: No Asbestos Detected	ęą.												
Client #	Hygeia #	잉	Texture	Homog.	휭	₩]	S	A.	T/A	Sell	Glass	빙	B/F	ON
1276-M-4	A0211016-04	Gray	Fibrous	Yes							80%		20%	
Comment:	Comment: No Asbestos Detected	78												
Client #	Hygeia #	톙	Texture	Homog	Ser	A	휭	A)	≸	뤵	Glass	빙	B/F	ONF
1276-E-5PR	A0211016-05	Gray	Fibrous	Yes	15%					30%			25%	
Comment:	Comment: Asbestos Detected.													

Hygeia Proje Client Projec	Hygeia Project Number: A0211016 Client Project Number/Name: 7649 / Hunter Bldg 1276	1016 7649 / Hu	inter Bldg	1276							P Analyz	Page: 2 of 16 Analyzed: 10/30/2002 by WAS	f 16 3/2002 by	WAS	
Sample ID	le ID	Sample	Sample Description	ion		Asbesto	Asbestos Percent	. ,		Othe	Other Fibers		Non -	Non - Fibers	
Client #	Hygeia #	Color	Texture	Homog.	빙	Am.	Cro.	-F	 ≸	lell.	Glass	비	B/F	NS NS	l
1276-E-6PR	A0211016-06	Brown	Fibrous	Yes	15%					30%			22%		
Comment:	Asbestos Detected.														
Client #	Hygeia #	Color	Texture	Homog.	췽	₩	S	An.	¥]	Cell:	Glass	빙	B/F	NO H	
1276-E-7PR	A0211016-07	Brown	Fibrous	Yes	15%					30%			25%		
Comment:	Asbestos Detected.														
							16. E								
Client #	Hygeia #	훵	Texture	Homog.	휭	Am.	90	An.	¥]	Sel	Glass	빙	B/F	A	
1276-E-8PE	A0211016-08	Tan	Fibrous	Yes							%09		40%		
Comment:	No Asbestos Detected.	·paj													
Client#	Hygeia#	Solor	Texture	Homog.	흉	Am	g	<u>An.</u>	<u>T/A</u>	Cell.	Glass	비	B/F	ONF	
1276-E-9PE	A0211016-09	Brown	Fibrous	Yes							%02		30%		
Comment:	Comment: No Asbestos Detected.	-red													
Client #	Hygeia #	Color	Texture	Homog.	휭	튁	힁	AII.	<u>T/A</u>	Sell	Glass	빙	B/F	NO NO	
1276-1W-10	A0211016-10	Brown	Cons.	Yes									100%		
Comment: T	Comment: Tile: NAD. Mastic: NAD. No Asbestos Detected	NAD. No.	Asbestos L	etected.			,								

Hygeia Project Client Project	Hygeia Project Number: A0211016 Client Project Number/Name: 7649 / Hunter Bldg 1276	1016 7649 / Hu	inter Bldg	1276							P. Analyze	Page: 3 of 16 Analyzed: 10/30/2002 by WAS	16 /2002 by	WAS	
Sample ID	O é	Sample	Sample Description	ion		Asbesto	Asbestos Percent	t		Other	Other Fibers		Non - Fibers	ibers	
Client #	Hygeia #	Color	Texture	Homog.	Chr.	Am.	Cro.	An.	 ≸	Cell.	Glass	 비	B/F	ONF	
1276-1W-11	A0211016-11	Tan	Fibrous	Yes						40%	20%		40%		
Comment: N	No Asbestos Detected.	ted.													
Client #	Hygeia #	Color	Texture	Homog.	췽	₩ H	S	A.	T/A	Sell	Glass	빙	B/F	ONF	
1276-1W-12	A0211016-12	Ta	Cons.	Yes						40%	20%		40%		
Comment: N	No Asbestos Detected.	ted.								* .					
Client #	Hygeia #	흥	Texture	Homog.	히	Am.	Ci Si	A.	T/A	<u></u>	Glass	빙	B/F	ONF	
1276-1W-13	A0211016-13	¥	Fibrous	Xes						40%	20%		40%		
Comment: N	No Asbestos Detected.	þ					**: **:								
Client #	Hygeia #	Color	Texture	Homog.	膨	<u>Am</u> .	8	A.	T/A	Cell	Glass	빙	B/F	ONF	
1276-1W-14	A0211016-14	Mulfi	Cons	Yes									100%		
Comment: N	No Asbestos Detected.	red.													
Client #	Hygeia #		Texture	Homog.	툉	Am 	용	ఠ	¥]	Cell	Glass	빙	B/F	ONF	
1276-1W-15	A0211016-15	Gray	Cons.	Yes						20%			%08		
Comment: No	No Asbestos Detected.	ted.													

Sample ID	le ID	Sample ID Sample Des		cription		Asbest	Asbestos Percent	ŧ		Othe	Other Fibers		ibers Non - Fibers	Non - Fibers
Client #	Hygeia #	Color	Texture	Homog.	휭	Am.	읭	An.	I ≸	Sell.	Glass	 빙	B/F	NO H
1276-1W-16	A0211016-16	Gray	Cons.	Yes									100%	
Comment:	Comment: No Asbestos Detected.	ted.												
	•													
Client #	Hygeia #	Color	Texture	Homog.	휭	튐	S S	Ą	T	ම	Glass	빙	B/F	NO F
1276-1W-17	A0211016-17	Gray	Cons.	Yes	2%								%86	
Comment: Ti	Comment: Tile: 2% Chrysotile. Mastic: 3% Chrysotile. Asbestos Detected.	. Mastic: 3	%-Chryso	otile. Asb	sstos Dete	cted.								
Client #	Hygeia #	흥	Texture	Homog.	휭	Am.	CB 	A.	T/A	Cell.	Glass	빙	B/F	PNO
1276-1W-18	A0211016-18	White	Cons	Yes									100%	
Comment: N	No Asbestos Detected	9					•1							
Client #	Hygeia #	Olo	Color Texture	Homod	割	Am.	Cio.	A	T/A	Cell	Glass	싱	B/F	ONF
1276-1W-19	A0211016-19	3 2 2	Cons.	Yes									100%	
comment: Ti	Comment: Tile & Mastic: NAD: No Asbestos Detected	: No Asbe	stos Detec	ted.										
Client #	Hygeia #	흥	Texture	Homog.	휭	Am.	g S	¥.	¥]	le E	Glass	빙	B/F	ONF
1276-1W-20	A0211016-20	Brown	Cons.	Yes									100%	
														2

Sample D Sample Description Asbestos Percent Other Fibers Other Fi	Samu							.00.00				D for ===================================			
104	dina	e ID	Sample	Descript	ion		Asbest	os reicei	ıt		othe	er Fibers		Non-	Fibers
10% 10% 50% 50% 10% 50% 50% 10% 50% 10%	Client #	Hygeia #	Color	Texture	Homog.	- H	Am.	S	- Yu	T/A	Cell:	Glass	비	B/F	削
102. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 102. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100% Assestos Detected. Assbestos Detected. Asspectos Detected. An. T/A Cell. Glass OF B/F 96% Assbestos Detected. Asspectos Detected. An. T/A Cell. Glass OF B/F 94% Assbestos Detected. An. T/A Cell. Glass OF B/F 94% Assbestos Detected. An. T/A Cell. Glass OF B/F 94% An. An. An. An. An. An. An. An.	1276-1W-21PR	A0211016-21	Gray	Fibrous	Yes	40%	•				10%			20%	
178 Cell Glass OF BIF Cell Glass OF BIF Cell Glass OF BIF Cell		Asbestos Detected													
100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Glass Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF Glass OF Glass 100. Chr. Am. Cro. An. T/A Cell. Glass OF Glass O															
100. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. S. 4.% Asbestos Detected. Cro. An. T.A. Cell. Glass O.F. Bif. 100. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. S. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. S. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. S. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. S. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. S. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. 100. Chr. Am. Cro. An. T.A. Cell. Glass O.F. Bif. Chr. Cro. Chr. Cro. Chr. Chr. Cro. Chr	* ************************************	*	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Table		į		ć		, i	:			<u>!</u>	!
100% 1/4 1/4 1/4 1/4 1/6	Client #	Hygela #	링	<u>exture</u>	Homog.	5	HJ.	္ပါ	A F	<u></u>	III	Glass	비	B/F	NS NS
100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100% 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100% 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 96% Asbestos Detected. 20. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 96% 35. <1% 100. An. T/A Cell. Glass OF B/F 96% 36. Short An. Cro. An. T/A Cell. Glass OF B/F 96% 36. Short An. Cro. An. T/A Cell. Glass OF B/F 96% 37. Short An. Cro. An. T/A Cell. Glass OF B/F 96%	1276-1W-22PE	A0211016-22	Gray	Fibrous	, Kes							%02		30%	
State Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100%		o Asbestos Detec	ted.												
100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100% Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100% Sh. Chr. An. T/A Cell. Glass OF B/F															
100% 100% 100% 1000	Client #	Hygeia #	흥	Texture	Homog.	휭	Am.	Cio	An.	ΑŢ	<u> </u>	Glass	비	B/F	N F
100g. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 100g. Chr. Am. Cro. An. T/A Gell. Glass OF B/F 100% Sh. Chr. An. T/A Cell. Glass OF B/F 100% Sh. Chr. An. T/A Cell. Glass OF B/F	1276-2W-23	A0211016-23	Malifi	Cons.	Yes		\$ *							100%	
10g. Chr. Am. Cro. An. T/A Cell. Glass OF B/F s 4% Asbestos Detected. Asbestos Detected. Or. An. T/A Cell. Glass OF B/F s < 10% An. T/A Cell. Glass OF B/F s < 10%		o Asbestos Detec	ted.												
10g. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 15 4% 4% 96% 96% 96% 96% Asbestos Detected. 106% 106% 106% 106% 106% 106% 106% 100% 10															
S	Client #	Hygeia #	Color	Texture	Homog.	Shr.	Am.	Clo	An.	¥]	Cell	Glass	님	B/F	ONF
Ashestos Detected. Og. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 5 < 1%	1276-2W-24	A0211016-24	Multi	Cons.	Yes	4%								%96	
Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 25 A0211016-25 Brown Cons. Yes <1%	Comment: Til	e: 4% Chrysotile	. Mastic: 4	% Chryso	tile. Asbe	stos Dete	cted.				-				
Hygeia # Color Texture Homog. Chr. Am. Cro. An. T/A Cell. Glass OF B/F 25 A0211016-25 Brown Cons. Yes <1%					10 (4) (4) (4) (4) (4) (4) (4) (4) (4) (4)										
A0211016-25 Brown Cons. Yes <1%	Client #	Hygeia #	Solor	Texture	Homog.		Am.	Cro	₩	T	Seli	Glass	빙	B/F	ONF
	1276-1S-25	A0211016-25	Brown	Cons.	Yes	×1%								100%	

Hygeia Proje Client Proje	Hygeia Project Number: A0211016 Client Project Number/Name: 7649 / Hunter Bldg 1276	11016 : 7649 / Hu	ınter Bldg	1276							P Analyz	Page: 6 of 16 zed: 10/30/200	Page: 6 of 16 Analyzed: 10/30/2002 by WAS	y WAS
Sam	Sample ID	Sample	Sample Description	ion		Asbest	Asbestos Percent	nt		Othe	Other Fibers		Non -	Non - Fibers
Client #	Hygeia#	Color	Texture	Homog.	Chr.	Am.	Si Si	핅	! ≸ 	Cell	Glass	비	B/F	ONF
1276-1S-26	A0211016-26	Cream	Cons.	Yes									100%	
Comment:	Comment: No Asbestos Detected.	sted.												
Client #	Hygeia#	Color	Texture	Homog.	휭	Ą	잉	A.	¥ <u>I</u>	Cell	Glass	빙	B/F	ONF
1276-15-27	A0211016-27	Cream	Cons.	Yes									100%	
Comment:	Comment: No Asbestos Detected.	9												
Client #	Hygeia#	Color	Texture	Homog.	휭	Am.	S	An.	Y]	Cell	Glass	빙	B/F	ONF
1276-1S-28	A0211016-28	5	Cons.	Kes									100%	
Comment:	No Asbestos Detected.	ited.												
Client #	Hygeia #	Color	Texture	Homog.	膨	Ä	잉	An	T/A	Cell	Glass	빙	B/F	ONF
1276-2S-29	A0211016-29	Tan	Cons.	Yes									100%	
Comment:	Comment: No Asbestos Detected.	ted.												
Client #	Hygeia #	<u> </u>	<u>Texture</u>	Homog	휭	Ę	읭	₩	₽	릥	Glass	빙	B/F	NO
1276-2S-30	A0211016-30	Brown	Cons.	Yes	2%								%86	
Comment: 1	Comment: Tile: 2% Chrysotile. Mastic: 3% Chrysotile. Asbestos Detected.	. Mastic: 3	% Chryso	tile. Asbe	stos Detec	cted.								

Sample ID	Sample ID Sample Des	Sample		cription		Asbest	Asbestos Percent	*		Othe	Other Fibers		ibers Non - Fibers	Non - Fibers
Client #	Hygeia #	Color	Texture	Homog.	췽	Am.	읭	F)	 ≸	Celli	Glass	I 비	B/F	빙
1276-RS-31	A0211016-31	Multi	Cons.	Yes						30%			%02	
comment:	Comment: No Asbestos Detected.	p												
Client #	Hygeia #	Color	Texture	Homog.	뜅	Am 	잉	(A)	T/A	Sell	Glass	⊝	B/F	ONE
1276-RS-32	12/6-RS-32 A0211016-32 Black Comment: No Asbestos Detected.	Black (ted	Gummy	Yes							20%		%08	
	# <u>!</u>					· •			i			기구등등학	!	
1276 DO 32	170eia #	3 3	i exture	Homod.	5	W	힘	¥	≱	<u></u>	Glass	비		NO NO
Comment: N	No Asbestos Detected.	je	3	8						% 00			%07 707	
Client #	Hygeia #	Color	<u>Texture</u>	Homog	히	W.	<u></u>	An.	¥]	Sell	Glass	비	B/F	ONF
1276-RS-34	A0211016-34	Gray	Cons.	Yes									100%	
omment: N	Comment: No Asbestos Detected.	fed												
Client #	Hygeia #	Solor	Texture	Homog.	휭	톙	<u>S</u>	An.	¥∥	B	Glass	빙	B/F	PNO
1276-1E-35	A0211016-35	Grav	Cons	X _a ×	×1%									

Hygeia Proje Client Projec	Hygeia Project Number: A0211016 Client Project Number/Name: 7649 / Hunter Bldg 1276	11016 : 7649 / Hi	ınter Bldg	1276							P Analyze	Page: 8 of 16 zed: 10/30/200	Page: 8 of 16 Analyzed: 10/30/2002 by WAS	, WAS
Sample ID	Ole ID	Sample	Sample Description	ion		Asbest	Asbestos Percent	nt		Othe	Other Fibers		Non -	Non - Fibers
Client #	Hygeia #	Color	Texture	Homog.	GP.	Am.	Cro.	An.	 ≸	 	Glass	l 비	B/F	ONF
1276-2E-36	A0211016-36	White	Cons.	Yes									100%	
Comment:	No Asbestos Detected.	ted.												
Client #	Hygeia#	Color	Texture	Homog.	휭	Am.	S	Au.	¥ <u>I</u>	Cell	Glass	비	B/F	ONF
1276-2E-37	A0211016-37		Cons.	Yes						20%			80%	
Comment:	Comment: No Asbestos Detected.													
Client #	Hygeia #	Color	Texture	Homog.	녱	Am.	S	An.	Y.	Sell	Glass	빙	B/F	NS PNS
1276-2E-38	A0211016-38	Black	Cons.	Yes	<1%								100%	
Comment:	Asbestos Detected.													
Client #	Hygeia #	Color	Color Texture	Homog.	謞	A	Cro.	Ā	T/A	<u>=</u>	Glass	빙	B/F	ONF
1276-3E-39	A0211016-39	Brown	Rubbery	Yes									100%	
Comment:	Comment: No Asbestos Detected.	ited.												
Client #	Hygeia #	Color	Texture	Нотод	ij	制	읭	¥	T/A	Cell	Glass	빙	B/F	ONF
1276-1N-40	A0211016-40	Gray	Cons.	Yes									100%	
Comment: T	Comment: Tile: NAD. Mastic: Not Enough to Analyze. No Asbestos Detected.	Not Enoug	gh to Anal	yze. No As	bestos De	tected.								

Hygeia Projec Client Project	Hygeia Project Number: A0211016 Client Project Number/Name: 7649 / Hunter Bldg 1276	211016 e: 7649 / H	unter Bldg	1276							F Analyz	Page: 9 of 16 Analyzed: 10/30/2002 by WAS	of 16 0/2002 by	y WAS
Sample ID	le ID	Sample	Sample Description	ion		Asbest	Asbestos Percent	1		Othe	Other Fibers		Non -	Non - Fibers
Client #	Hygeia #	Color	Texture	Homog.	Chr.	Am.	C <u>ro</u>	An.	T/A	Sell	Glass	빙	B/F	ONF
1276-1N-41	A0211016-41	White	Cons.	Yes									100%	
Comment:	No Asbestos Detected.	ected.												
Client #	Hygeia #	Color	Texture	Homog.	Chr.	Am.	S S	An.	T/A	Sell	Glass	읾	B/F	ONF
1276-1N-42	A0211016-42	Brown	Cons.	Yes	2%								% 92%	
Comment: Ti	Comment: Tile: 5% Chrysotile. Black Mastic: 5% Chrysotile.	le. Black N	fastic: 5%	Chrysotile		Asbestos Detected.	ġ.							
Client #	Hygeia #	Color	Texture	Homog.	Chr	Am.	S	An.	T/A	Cell	Glass	빙	B/F	ONE
1276-1N-43	A0211016-43	White	Cons.	Yes									100%	
Comment: N	No Asbestos Detected.	ected.												
Client #	Hygeia #	Color	Texture	Homog.	S.	Am.	CIO	An.	T/A	Cell	Glass	OF.	B/F	ONF
1276-1N-44	A0211016-44	Brown	Cons.	Yes						2%			82% 82%	
Comment: N	No Asbestos Detected.	cted.												
Client #	Hygeia #	Color	Texture	Нотод.	ų.	Am.	O O	<u>An</u>	T/A	Cell	Glass	싱	B/F	ONE
1276-2N-45	A0211016-45	Gray	Cons.	Yes									100%	
Comment: Ti	Comment: Tile & Mastic: NAD. No Asbestos Detected.	AD. No Ast	estos Deter	cted.										

Hygeia Proje⊲ Client Project	Hygeia Project Number: A0211016 Client Project Number/Name: 7649 / Hunter Bldg 1276	11016 : 7649 / Ht	unter Bldg	1276							P Analyz	Page: 10 of 16 zed: 10/30/2002	Page: 10 of 16 Analyzed: 10/30/2002 by WAS	v WAS
Sample ID	le ID	Sample Des	Description	ion		Asbesto	Asbestos Percent	.		Othe	Other Fibers		Non -	Non - Fibers
Client #	Hygeia #	Color	Texture	Homog.	Chr.	Am.	힁	-H	 \$	Cell	Glass	비	B/F	NSI
1276-3N-46	A0211016-46	Black	Gummy	Yes	3%					30%			%29	
Comment:	Asbestos Detected.													
:	:													
Client #	Hygeia #	읭	Texture	Homog.	됩	AH.	S	Au.	¥]	Sell	Glass	밁	B/F	NO F
1276-RN-47	A0211016-47	Black	Gummy	Yes						40%			%09	
Comment:	Comment: No Asbestos Detected.	3								. (_. -				
Client #	Hygeia #	Color	Texture	Homog.	訚	Am.	S	An.	¥]	S	Glass	빙	B/F	NO H
1276-RN-48	A0211016-48	B S S	Cons.	Xes						30%	10%	- 200	%09	
Comment: N	No Asbestos Detected.	ted.												
Client #	Hygeia #	Solor	Texture	Homog.	Öl.	₩	S	A u	T/A	Cell	Glass	빙	B/F	ONF
1276-RN-49	A0211016-49	Black	Fibrous	\$						40%			%09	
Comment: P	Comment: No Asbestos Detected.											· 秦が祖は問		
Client #	Hygela #	Color	Texture	Homog	췽	A	S	An Pu	≱ I	Sell	Glass	빙	B/F	ONF
1276-RA-50	A0211016-50	Gray	Cons.	Yes	2%								95%	
Comment: Ti	Comment: Tile: 5% Chrysotile. Mastic: 6% Chrysotile. Asbestos Detected.	e. Mastic:	6% Chryse	otile. Asbe	estos Dete	cted.								

Hygeia Projec Client Project	Hygeia Project Number: A0211016 Client Project Number/Name: 7649 / Hunter Bldg 1276	1016 7649 / Hu	inter Bldg	1276							P Analyza	Page: 11 of 16 Analyzed: 10/30/2002 by WAS	of 16 3/2002 by	WAS	
Sample ID		Sample	Sample Description	ion		Asbesto	Asbestos Percent			Other	Other Fibers		Non - Fibers	Fibers	
Client #	Hygeia #	Color	Texture	Homog.	S.	Am.	Cio.	핗	 ≸	le E	Glass	 비	B/F	NO E	l
1276-RA-51	A0211016-51	White	Cons.	Yes									100%		
Comment: N	No Asbestos Detected.	ted.													
Client #	Hygeia #	Color	Texture	Homog	뜅	Am.	ol Cio	A.	T\	 	Glass	빙	B/F	N F	
1276-RA-52	A0211016-52	Brown	Fibrous	Yes						30%			20%		
Comment: N	Comment: No Asbestos Detected.	.													
Client #	Hygeia #	Solo	Texture	Homog.	히	Am.	Clo	- Yu	T/A	Cell	Glass	빙	<u> </u>	ONF	
1276-RA-53	A0211016-53	Brown	Cons	Yes									100%		
Comment: N	No Asbestos Detected.														
Client #	Hygeia#	Color	<u>Texture</u>	Homog.	ā	Āri.		- V	ĕ I	Sel	Glass	빙	B/F	ONF	
1276-RA-54	A0211016-54	Gray	Cons.	Yes									100%		
Comment: No	No Asbestos Detected.	.													
Client #	Hygeia #	Color	Texture	Нотод.	뜅	퇽	<u>S</u>	₩.	₹]	<u> </u>	Glass	비	B/F	ONF	
1276-RA-55	A0211016-55	Brown	Cons.	Yes	2%								%56		
Comment: Til	Comment: Tile: 5% Chrysotile. Mastic: 5% Chrysotile. Asbestos Detected.	, Mastic: 5	% Chryso	tile. Asbes	stos Detect	ted.									

Hygeia Project Client Project ∣	Hygeia Project Number: A0211016 Client Project Number/Name: 7649 / Hunter Bldg 1276	1016 7649 / Hu	inter Bldg	1276							F Analyz	Page: 12 of 16 Analyzed: 10/30/2002 by WAS	of 16 0/2002 b y	/ WAS	
Sample ID	OI 6	Sample	Sample Description	ion		Asbest	Asbestos Percent	¥		Othe	Other Fibers		Non-	Non - Fibers	
Client #	Hygeia#	잉	Texture	Homog.	Chr.	Am.	Clo	An.	 ¥	Sell	Glass	l 비	B/F	휭	
1276-RA-56	A0211016-56	Black	Gummy	2									100%		
Comment: No	No Asbestos Detected.	ted.													
Client # trail.	Hvoein #	Color	Texture	Homog	Ž	W 4	٤	4	T/A	٥	معدات	Č	ų/a	ij	
						ä	<u> </u>	āl .	<u>[</u>		Ogo	5			
1276-RA-57	A0211016-57	Black	Gummy	2									100%		
Comment: No	No Asbestos Detected.	3	41 41 41 41 41 41 41 41 41 41 41 41 41 4												
Client #	Hygeia#	Color	Texture	Homog.	됭	Am.	S	Ā.	T/A	. j	Glass	빙	B/F	NS FI	
1276-RA-58	A0211016-58	Black	Fibrous	Yes						%02			30%		
Comment: No	No Asbestos Detected.	-paj										140			
Client #	Hygeia #	Color	Texture	Homog.	휭	Am.	8	An.	≱]	Sel	Glass	빙	B/F	ONF	
1276-RA-59	A0211016-59	Black	Layered	2						70%	20%		%09		
Comment: No	No Asbestos Detected.	ied.													
Client #	Hygeia #	Solo	Texture	Нотод.	췽	₩	S	뒘	<u>T/A</u>	뤵	Glass	빙	B/F	ONF	
1276-RA-60	A0211016-60	Black	Layered	ž						20%	20%	•	%09		
Comment: No	No Asbestos Detected.	ted.													

			חוובו בותה	0/7							Alianytea: 10/30/2004 By MAG				
Sample ID	016	Sample	Sample Description	lon		Asbest	Asbestos Percent	ıı		oth	Other Fibers		Non -	Non - Fibers	
Client #	Hygeia #	Color	Texture	Homog.	G.	Am.	Cio.	An.	T/A	Cell	Glass	빙	B/F	ONF	l
1276-RA-61	A0211016-61	Multi	Cons.	Yes						20%			80%		
Comment: No	No Asbestos Detected.	ed.													
Client #	Hygeia #	Color	Texture	Homog.	Chr	Am.	Cio	An.	<u>T/A</u>	Cell	Glass	빙	B/F	ONE	
1276-1-62	A0211016-62	Brown	Cons.	χes	2%								32%		
Comment: Tilk	Comment: Tile: 5% Chrysotile, Mastic: 5% Chrysotile. Ashestos Defected.	Mastic:	5% Chrys	otile. Ash	estos Deto	ected.									
	•														
Client #	Hygeia #	Color	Texture	Homog.	당	Am.	CIO	An.	T/A	Cell	Glass	빙	B/F	ONF	
1276-1-63	A0211016-63	Gray	Cons.	8	×1%								100%		
Comment: Tile	Comment: Tile: NAD. Brown & Black Mastic: 2% Chrysotile. Asbestos Detected.	Black M	fastic: 2%	Chrysotile	e. Asbest	tos Detecte	Ę,								
Client #	Hygeia #	Color	Texture	Homog.	<u>망</u>	Am.	S	<u>An</u>	T/A	Cell.	Glass	빙	B/F	NO N	
1276-1-64	A0211016-64	Tan	Cons.	S S	2%								%86 8		
Comment: Tilk	Comment: Tile: 2% Chrysotile. Brown Mastic: NAD. Asbestos Detected.	Brown N	fastic: NA	D. Asbest	tos Detect	ed.									
Client #	Hygeia #	Color	Texture	Homog.	Chr.	Am.	Sign	An.	ΙΆ	Cell	Glass	빙	B/F	ONF	
1276-1-65	A0211016-65	Gray	Cons.	Yes									100%		
Comment: Tilk	Comment: Tile: NAD. No Mastic Present.	ic Present		No Asbestos Detected.	ted.										

Hygeia Projec Client Project	Hygeia Project Number: A0211016 Client Project Number/Name: 7649 / Hunter	1016 7649 / Hu	inter Bldg	Bldg 1276							P Analyz	Page: 14 of 16 Analyzed: 10/30/2002 by WAS	of 16 0/2002 by	WAS
Sample ID	le ID	Sample	Sample Description	ion		Asbest	Asbestos Percent	ıţ		Othe	Other Fibers		Non -	Non - Fibers
Client #	Hygeia #	Color	Texture	Homog	Ch.	Am.	Cro	An.	I ¥]	Cell	Glass	비	PJE BJE	NO
1276-1-66	A0211016-66	Multi	Cons.	Yes						20%			80%	
Comment:	Comment: No Asbestos Detected.	red.												
Client #	Hygeia #	Color	Texture	Homog	휭	Am.	CJ CJ	An.	T/A	Sell	Glass	빙	B/F	NO H
1276-1-67	A0211016-67	White	Cons.	Yes									100%	
Comment: I	Comment: No Asbestos Detected.	3						A						
Client #	Hygeia #	<u> </u>	Texture	Homog.	휭	Am.	읭	<u>An</u>	¥	Cell:	Glass	딍	B/F	ONF
1276-1-68	A0211016-68	White	Coms.	Yes									100%	
Comment: N	No Asbestos Detected.	je Gd												
Client #	Hygeia #	Color	Texture	Homog.	訚	AH.	CIO.	An.	T/A	Cell	Glass	비	B/F	ONF
1276-1-69PR	A0211016-69	Brown	Fibrous	Yes	3%					%29			30%	
Comment:	Asbestos Detected.													
Client #	Hygeia #	Color	Texture	Homog	뜅	AH.	S	An.	<u>¥</u>	<u></u>	Glass	빙	B/F	ONF
1276-1-70PR	A0211016-70	Brown	Fibrous	Yes	%9					64%			30%	
Comment:	Asbestos Detected.													

Client Project	Client Project Number/Name: 7649 / Hunter Bldg 1276	: 7649 / H	unter Bldg	1276							Analyz	zed: 10/30/2002	Analyzed: 10/30/2002 by WAS	y WAS	
Sample ID	EιD	Sample	Sample Description	uo.		Asbesto	Asbestos Percent	11		Othe	Other Fibers		Non -	Non - Fibers	ı
Client #	Hygeia #	Color	Texture	Homog.	S.	Am.	O O	Ā.	ΑĮ	8	Glass	심	B/E	ONE	
1276-1-71PR	A0211016-71	Brown	Fibrous	Yes	%2					63%			30%		
Comment:	Asbestos Detected.	, T													
:	:														
Client #	Hygeia #	Color Color	Texture	Homog	<u>님</u>	Am.	Ci Ci	An.	T/A	Cell.	Glass	빙	B/F	N N	
1276-1-72	A0211016-72	White	Cons.	Yes									100%		
Comment: The	Comment: This is not a floor tile. No Asbestos Detected.	ile. No As	bestos Dete	cted.											
Client #	Hygeia #	Color	Texture	Homog.	Chr.	Am.	<u>C0</u>	An.	T/A	Cell.	Glass	딩	B/E	ONE	
1276-1-73	A0211016-73	Multi	Cons.	*						20%			80%		
Comment: N	No Asbestos Detected.	cted.													
					eni.										
Client #	Hygeia #	Color	Texture	Texture Homog.	췽	Am.	Cro	An.	I N	S	Glass	심	B/F	ONF	
1276-1-74	A0211016-74	White	Cons.	Yes						30%			%02		
Comment: N	No Asbestos Detected.	ted.													
Client #	Hygeia #	Color	Texture	Homog.	Chr.	Am.	Cio	An	¥,L	<u>.</u>	Glass	P.	B/F	ONF	
1276-EX-75	A0211016-75	Brown	Fibrous	% ×						40%			%08		
Comment: N	No Asbestos Detected.	ted.													

Client# Hygeia# Color Texture Homoa Chr. Am Coo An TiA Coll Glass OF Bir ONF 1276-VP-76 A0211016-76 Tan Cons. Yes 20% Am Coo An TiA Coll Glass OF Bir ONF 1276-VP-77 A0211016-77 A0211016-77 Au Coll Co	Sample ID Sample Descri	Sample	649 / Hunter Bidg 127 Sample Description	dg 1276 Iption		Asbest	Asbestos Percent	ايد		Othe	Analyz Other Fibers	Analyzed: 10/30/2002 by WAS ibers Non - Fibers	zed: 10/30/2002 b	002 by WAS Non - Fibers
Selected. Selected.	8	Color	Texture	Homog	원 형	Am.	Cio	An.	T/A	Cell.	Glass	비	B/F	ONF
geia # Color Texture Homog. Chr. Am. Gro. An. TiAllo Geil.				3	% 07								% 08	
so Detected. so Detected. so Detected. cell = cellulose		8	Texture	Homog	췽	₩	읭	Ą	¥]	<u>=</u>	Glass	님	B/F	ONE
cell = cellulose per = perlite OF glass = fibrous glass ver = vermiculite ONF syn = synthetic MF = Mineral filler Cons sty = styrene foam B/F = Binder / filler ctinolite det = detected NAD = No asbestos detected	1276-VP-77 A0211016-77	Black	Gummy	Zes	%8								%26	
cell = cellulose per = perlite OF glass = fibrous glass ver = vermiculite ONF syn = synthetic MF = Mineral filler Cons lite sty = styrene foam B/F = Binder / filler det = detected NAD = No asbestos detected	Comment: Asbestos Detected													
glass = fibrous glass ver = vermiculite ONF syn = synthetic MF = Mineral filler Cons sty = styrene foam B/F = Binder / filler det = detected NAD = No asbestos detected	abbreviations: Chr. = chrvsotile			do O III do		, d	morelite					1.15 1.15 1.15		
lite sty = synthetic MF = Mineral filler Cons sty = styrene foam B/F = Binder / filler det = detected NAD = No asbestos detected	mosite			= fibrous	glass	her Ver	= vermicu	dite		5 S		er Non-F	ibers	
sty = styrene foam B/F det = detected NAD	rocidolite		100	= synthetic			= Mineral	filler		Cor		nsolidate	þ	
det = detected NAD	ınthophyllite		M.,	= styrene f	oam	B/F	= Binder /	/ filler						
	remolite/actinolite	63		= detected			= No asbe	stos dete	cted					

Appendix B

Sample Chain of Custody Forms

Project:	Hunter Bldg. 1276	Job No.:	7649	
Sampler:	Tim Jones	Analysis:	PLM	

DATE	FIELD ID	EMU ID	COMPONENTS/NOTES
10/17/2002	1276-M-1PR	44759	TSI pipe run
10/17/2002	1276-M-2PE	44760	TSI pipe elbow
10/17/2002	1276-M-3	44761	Gypsum wall board
10/17/2002	1276-M-4	44762	Fire door insulation
10/17/2002	1276-E-5PR	44763	TSI pipe run
10/17/2002	1276-E-6PR	44764	TSI pipe run
10/17/2002	1276-E-7PR	44765	TSI pipe run
10/17/2002	1276-E-8PE	44766	TSI pipe elbow
10/17/2002	1276-E-9PE	44767	TSI pipe elbow
10/17/2002	1276-1W-10	44768	Floor tile
10/17/2002	1276-1W-11	44769	Ceiling tile
10/17/2002	1276-1W-12	44770	Ceiling tile
10/17/2002	1276-1W-13	44771	Ceiling tile
10/17/2002	1276-1W-14	44772	"Popcorn" ceiling surfacing
10/17/2002	1276-1W-15	44773	Drywall joint compound
10/18/2002	1276-1W-16	44774	Drywall joint compound
10/18/2002	1276-1W-17	44775	Floor tile
10/18/2002	1276-1W-18	44776	Drywall joint compound
10/18/2002	1276-1W-19	44777	Floor tile
10/18/2002	1276-1W-20	44778	Drywall joint compound
10/18/2002	1276-1W-21PR	44779	TSI pipe run
10/18/2002	1276-1W-22PE	44780	TSI pipe elbow

Relinquished By	Date	Time	Received By	Date	Time
Timecon	10-25-02	1425			
8					

Comments: Fax results to Tim Jones @ 678-354-0330

Project:	Hunter Bldg. 1276	Job No.:	7649	
Sampler:	Tim Jones	Analysis:	PLM	

DATE	FIELD ID	EMU ID	COMPONENTS/NOTES
10/18/2002	1276-2W-23	44781	Drywall joint compound
10/18/2002	1276-2W-24	44782	Floor tile
10/18/2002	1276-1S-25	44783	Floor tile
10/18/2002	1276-1S-26	44784	Plaster
10/18/2002	1276-1S-27	44785	Drywall joint compound
10/18/2002	1276-1S-28	44786	"Popcorn" ceiling surfacing
10/18/2002	1276-2S-29	44787	"Popcorn" ceiling surfacing
10/18/2002	1276-2S-30	44788	Floor tile
10/18/2002	1276-RS-31	44789	Roofing cement
10/18/2002	1276-RS-32	44790	Built up roofing
10/18/2002	1276-RS-33	44791	Roof insulation
10/18/2002	1276-RS-34	44792	Light weight concrete
10/18/2002	1276-1E-35	44793	Floor tile
10/18/2002	1276-2E-36	44794	"Popcorn" ceiling surfacing
10/18/2002	1276-2E-37	44795	Drywall joint compound
10/18/2002	1276-2E-38	44796	Floor joint sealer
10/18/2002	1276-3E-39	44797	Caulking material
10/18/2002	1276-1N-40	44798	Floor tile
10/18/2002	1276-1N-41	44799	Drywall joint compound
10/18/2002	1276-1N-42	44800	Floor tile
10/18/2002	1276-1N-43	44801	"Popcorn" ceiling surfacing
10/18/2002	1276-1N-44	44802	Drywall joint compound

Relinquished By	Date	Time	Receive	<i>∦</i> В у	Λ	 Date	Time
Tim Con	10-25-02	1425		X			
8				$\overline{\Lambda}$			

Comments: Fax results to Tim Jones @ 678-354-0330

Project:	Hunter Bldg. 1276	Job No.: 7649
Sampler:	Tim Jones	Analysis: PLM

DATE	FIELD ID	EMU ID	COMPONENTS/NOTES	
10/18/2002	1276-2N-45	44803	Floor tile	
10/18/2002	1276-3N-46	44804	Floor joint sealer	
10/18/2002	1276-RN-47	44805	Roofing cement	
10/18/2002	1276-RN-48	44806	Built up roofing	
10/18/2002	1276-RN-49	44807	Vent flashing	
10/18/2002	1276-RA-50	44808	Floor tile	
10/18/2002	1276-RA-51	44809	Drywall joint compound	
10/18/2002	1276-RA-52	44810	Ductwork flex joint	
10/18/2002	1276-RA-53	44811	Adhesive	
10/18/2002	1276-RA-54	44812	Drywall joint compound	
10/18/2002	1276-RA-55	44813	Floor tile	
10/18/2002	1276-RA-56	44814	Roof flashing	
10/18/2002	1276-RA-57	44815	Built up roofing	
10/18/2002	1276-RA-58	44816	Roof insulation	
10/18/2002	1276-RA-59	44817	Built up roofing	
10/18/2002	1276-RA-60	44818	Vent flashing	
10/18/2002	1276-RA-61	44819	Roofing cement	
10/22/2002	1276-1-62	44820	Floor tile	
10/22/2002	1276-1-63	44821	Floor tile	
10/22/2002	1276-1-64	44822	Floor tile	
10/22/2002	1276-1-65	44823	Floor tile	A177-1124-11
10/22/2002	1276-1-66	44824	Drywall joint compound	

Relinquished By	Date	Time	Received By	Δ		Date	Time
Times	10-25-02	1425	1 X				
•			1 / / /		/		

Comments: Fax results to Tim Jones @ 678-354-0330

Project:	Hunter AAF Building 1276	Job No.:	7649	
Sampler:	Tim Jones	Analysis:	PLM	[9]

DATE	FIELD ID	EMU ID	COMPONENTS/NOTES
10/22/2002	1276-1-67	44825	Drywall joint compound
10/22/2002	1276-1-68	44826	Drywall joint compound
10/22/2002	1276-1-69PR	44827	TSI pipe run
10/22/2002	1276-1-70PR	44828	TSI pipe run
10/22/2002	1276-1-71PR	44829	TSI pipe run
10/22/2002	1276-1-72	44830	Drywall joint compound
10/22/2002	1276-1-73	44831	Drywall joint compound
10/22/2002	1276-1-74	44832	Gypsum wallboard
10/22/2002	1276-EX-75	44833	Felt paper
10/22/2002	1276-VP-76	44834	TSI block insulation
10/22/2002	1276-VP-77	44835	TSI mastic
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Relinquished By	Date	Time	Received By	Date	Time
Tim Son	10-25-02	1405			
U					

Comments: Fax results to Tim Jones @ 678-354-0330	-

Appendix C

Certifications

The Environmental Institute

Tim Jones

Has completed coursework and satisfactorily passed an examination that meets all criteria required for EPA / AHERA (TSCA Title II) Approved Accreditation and NESHAP Regulations Training

Asbestos in Buildings: Inspection and Assessment

February 10-12, 1997

2360 Certificate Numbe

February 12, 1997
Examination Date

February 11, 1998
Expiration Date

TEI - 1300 Williams Drive, Suite E - Marietta, Georgia 30066 - (770) 427-3600

The Environmental Institute

<u>Tim Jones</u>

Has completed coursework and satisfactorily passed an examination that meets all criteria required for EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation and NESHAP Regulations Training

Asbestos in Buildings: Inspector Refresher

February 26, 2002

Course Date

7283

February 26, 2002
Examination Date

February 25, 2003
Expiration Date

TEI - 1300 Williams Drive, Suite E - Marietta, Georgia 30066 - (770) 427-3600

ISO 9002:1987 **ISO/IEC GUIDE 25:1990** National Institute of Standards and Technology United States Department of Commerce Certificate of Accreditation (Z) DE RATIMENT OF COL OF AMERICA

HYGEIA LABORATORIES, INC.

MARIETTA, GA

criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for: is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with

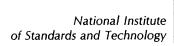
BULK ASBESTOS FIBER ANALYSIS

March 31, 2003

Effective through

Pavid F. Molerman

For the National Institute of Standards and Technology NVLAP Lab Code: 102087-0





National Voluntary Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990 ISO 9002:1987

Scope of Accreditation



Page: 1 of 1

BULK ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 102087-0

HYGEIA LABORATORIES, INC.

1300 Williams Drive, Suite A Marietta, GA 30066-6299 Mr. Clayton Call

Phone: 770-514-6933 Fax: 770-514-6966 E-Mail: call67@atc-enviro.com

NVLAP Code

Designation

18/A01

EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk

Insulation Samples

March 31, 2003

Effective through

Pavid I. alderman

For the National Institute of Standards and Technology

NVLAP-01S (11-95)





Hazardous Building Materials Survey

Building No. 1276 Hunter Army Air Field, Georgia

Prepared by Timothy A. Jones

The contents of this report are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products.

The findings of this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

Building 1276, Hunter Army Air Field, GA

by Timothy A. Jones

Final Report

Approved for public release; distribution is unlimited

Prepared for US Army Corps of Engineers Savannah District

Hazardous Building Materials Survey Report

Introduction

Background

Building No. 1276 is a 1950s vintage three-story structural concrete and masonry frame structure with multi-layered built-up asphalt and felt roof systems over structural concrete. The floor systems are structural concrete covered generally with vinyl tile. The exterior of the building has been renovated at some time and covered with a stucco material over expandable polystyrene and cloth mesh, effectively hiding the original exterior structure and hindering inspection of that original finish. The building is divided into five main sections. The center section is two stories with the first incorporating office/storage space and the second story divided between recreational areas, storage areas, Post Office, offices, two restrooms and a mechanical room. The four remaining sections are identical three story barracks wings. The barracks rooms are laid out such that generally two sleeping quarters share one bathroom and storage room, with the exception that the two outer end sleeping rooms do not share restrooms. Each floor has a separate janitor's closet, laundry room and storage room. The uppermost floor's storage room contains an access opening to the roof of that particular wing. The roofs of the four wings are identical in appearance. Rooms on the building floor plans are arbitrarily numbered for identification in this report only as indicated on Figure 1.

Description of study

Investigation

This report documents the hazardous building materials survey of Building No. 1276 at Hunter Army Air Field, Georgia conducted on 17-18 October 2002 by USACE Savannah District employees Tim Jones and Mike Ruth. This survey was conducted in general accordance with the Statement of Services developed by Ray Willingham, USACE Savannah District, which includes the USAEHA guidance for demolition debris characterization by TCLP sampling.

Conclusions

The following information gathered during the survey of Building 1276 is presented in attached information:

- *a. Light Count:* The fluorescent and mercury vapor light count results are presented in Table 1.
- b. Lead Building Materials: Inspection of the building revealed lead in the plumbing drainage and vent piping system used as pipe joints. Lead flashings are used at the pipe penetrations through the roof. Details are outlined in Table 2
- c. TCLP Lead Results: Sampling of building components was performed as required and components were processed and mixed in the proper percentages and given a sample identification of HAAF B 1276 TCLP. TCLP analysis by Hygeia Laboratories indicates that lead is not present above Hygeia's reporting limit of 0.5 mg/L, and therefore is below the regulatory limit of 5 mg/L for landfill disposal. Field sampling data including component type, color, TCLP mix percentage and approximate sampling location is presented in Table 3. A scanned copy of Hygeia's analytical report is included as Appendix A.
- d. Thermostats: Two hundred and seventy-six mercury-containing thermostats were located in Building 1276, one in each barracks sleeping room and one in each laundry room.
- e. Smoke Detectors: Three hundred and twenty-four smoke detectors were located in building 1276, one in each barracks sleeping room and five in each barracks wing corridor. Some smoke detectors contain a small radioactive source used as the detector and must be disposed of properly. Others contain electronic circuit boards that should be properly disposed.
- f. Transformers: One large pad mounted transformer was located on the exterior of the building near the mechanical room.
- g. Compressed Refrigerant Gas: Twenty-one window air-conditioning units were located in Building 1276; nineteen in the barracks wings and two in the recreation area. One rooftop air conditioning unit is on the lower roof associated with the Recreation Area. Twelve drinking fountains were located in Building 1276, one on each floor of the barracks wings. All of these units are assumed to contain refrigerant gas that should be recovered prior to demolition.
- h. Above and Underground Storage Tanks: None of either were located associated with Building 1276.

List of Tables	3
Table 1.	Fluorescent and Mercury Vapor Light Count4
Table 2.	Lead Building Components4
Table 3.	TCLP Sampling Details
List of Figure	es
Figure 1.	HFHH116.dgn Room Identification6
Appendix	
Appendix A.	Analytical Report – Hygeia Laboratories, Inc7-11

Tables

TABLE 1 HUNTER ARMY AIR FIELD BUILDING 1276 FLUORESCENT AND MERCURY LIGHT FIXTURES

AREA IDENTIFICATION	# & TYPE LIGHTS PRESENT	DESCRIPTION OF LIGHTS
Interior	11	2 bulb, 2 foot square fluorescent fixtures
Interior	24	1 bulb, 4 foot fluorescent fixtures
Interior	735	2 bulb, 4 foot fluorescent fixtures
Interior	28	Exit Lights
Interior	76	Battery backup emergency lights

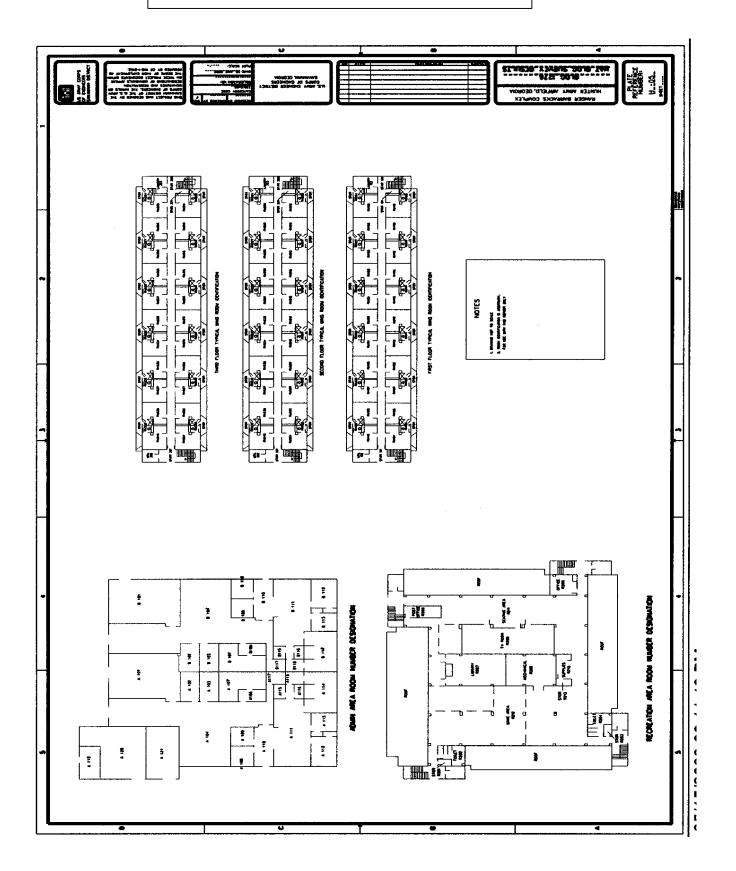
TABLE 2 HUNTER ARMY AIR FIELD BUILDING 1276 LEAD BUILDING COMPONENTS

BUILDING COMPONENT	DESCRIPTION	LOCATION	ESTIMATED NUMBER
	In plumbing	Under slab and	
Hot poured lead pipe joint	drainage, waste and		3000-4000
	vent piping	chase walls	
Lead Pipe Flashings	Roof flashing	Roof	60

TABLE 3 HUNTER ARMY AIR FIELD BUILDING 1276 TCLP COMPOSITE SAMPLE COMPONENTS

BUILDING COMPONENT	DESCRIPTION	LOCATION	PERCENTAGE OF SAMPLE
Unpainted Wood	Wall framing	Room A 104	26%
Interior wall covering	White painted drywall	North wing, 3 rd floor, storage room	23%
Roofing Components	Built-up roofing membrane	North wing roof	7%
Interior Floor Coverings	Floor tile	North wing, 1 st floor, room 138	10%
Block, Brick, Concrete	Tan painted block	South wing, 1 st floor corridor wall	25%
Ceiling Material	White ceiling tile	South wing, 2 nd floor corridor	7%
Painted Wood-Interior	Black base molding	East wing, 3 rd floor corridor	1%
Painted Wood-Exterior	Tan stucco substituted, no exterior wood present	Exterior, near mechanical room	1%

Figure 1



Appendix A

Analytical Report – Hygeia Laboratories, Inc



HYGEIA LABORATORIES, INC.

1300 Williams Drive, Suite A - Marietta, Georgia 30066-6299 - (770) 514-6933, FAX (770) 514-6966

Lab Project No.

M0210286

Report Date: 11/01/02

1 of 3

Client Name: US Army Corp of Engineers - Atlanta

Contact: Tim Jones

Address: Environmental & Materials Unit

200 North Cobb Parkway

Bldg. 400, Ste. 404

Marietta, GA 30062

Project Name: Hunter AAF Ranger Barracks Complex

Project ID: 7651

Receipt Date: 10/25/2002

Case Narrative

- 1. The sample holding times were met for all analyses.
- 2. Where applicable, results & reporting limits are based on wet weight; dry weight calculations available.
- 3. The temperature of the sample cooler as received by the laboratory was room temperature.
- 4. Hygeia Labs assumes a sampling time of 12:00 PM unless otherwise specified on the Chain of Custody.

Reviewed By: AUS

Respectively Submitted:

Hygeia Laboratories, Inc.

Sample Identification

Lab Sample #	Client Sample ID	Sample Supply	<u>Collected</u>
M0210286-01	HAAF B 1275 TCLP	Bulk	10/25/02
M0210286-02	HAAF B 1276 TCLP	Bulk	10/25/02
M0210286-03	HAAF B 1412 TCLP	Bulk	10/25/02
M0210286-04	HAAF B 1413 TCLP	Bulk	10/25/02

An ATC Group Services Inc. Company

Lab Project No.

M0210286

Report Date: 11/01/02 2 of 3

TCLP Metals By ICP	Units:	mg/L (ppm)	Method #: EPA_	1311/6010B
Matrix: Leachate	Analysis Date: 10/31/2002	Prep Date:	10/29/2002	Analyst: SR
Lab Sample #: M0210286-01	Clie	nt ID: HAAF B 127	5 TCLP	
Analyte(s)	CAS#	Result	Report Limit	Flag Code
Lead	7439-92-1	BRL	0.5	
TCLP Metals By ICP	Units:	mg/L (ppm)	Method #: EPA_	1311/6010B
Matrix: Leachate	Analysis Date: 10/31/2002	Prep Date:	10/29/2002	Analyst: SR
Lab Sample #: M0210286-02	Clie	nt ID: HAAF B 127	6 TCLP	
Analyte(s)	CAS#	Result	Report Limit	Flag Code
Lead	7439-92-1	BRL	0.5	electric est contravered contrave annual est contravered contraver
TCLP Metals By ICP	Units:	mg/L (ppm)	Method #: EPA_	1311/6010B
Matrix: Leachate	Analysis Date: 10/31/2002	Prep Date:	10/29/2002	Analyst: SR
Lab Sample #: M0210286-03	Clie	nt ID: HAAF B 141	2 TCLP	
Analyte(s)	CAS#	Result	Report Limit	Flag Code
Lead	7439-92-1	BRL	0.5	******
TCLP Metals By ICP	Units:	mg/L (ppm)	Method #: EPA_	1311/6010B
Matrix: Leachate	Analysis Date: 10/31/2002	Prep Date:	10/29/2002	Analyst: SR
Lab Sample #: M0210286-04	Clier	nt ID: HAAF B 141	3 TCLP	
	CAS#	Result	Report Limit	Flag Code

M0210286

Report Date: 11/01/02

3 of 3

NOTES:

- Results relate only to the samples tested as received (See Chain-of-Custody).
- BRL = "Below Reporting Limit"
- RL = "Reporting Limit"
- E = "Estimated Result"
- Dates are presented in the format "month/day/year"

Certifications

Alabama - Lab ID 40970; Arkansas; Connecticut - No. PH 0208; Defaware - GA040; Georgia - No. 804; Indiana - Lab ID C-GA-01 Kentucky - Lab ID 90053, UST - No. 0005; Louisiana; Maryland - No. 293; Massachussetts No. M - GA040; North Carolina - No. 409 Rhode Island, License No. 245; South Carolina - No. 98012001; Tennessee - Lab ID 02827; Virginia - Lab ID 00024 South Carolina - No. 98012; Tennessee - Lab ID 02827 (DW), UST Program; Virginia - Lab ID 0024

Accreditations

American Association for Laboratory Accreditation, A2LA - No. 330.01; American Industrial Hygiene Association, AIHA - Lab ID 100649; NELAC - State of Florida DOH, No. E87257

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US Army Corps of Engineers Savannah District Environmental & Materials Unit

Chain of Custody Record ${\cal M}\,\partial 210286$

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Date Time Pr	Pres. Gr	Щ	Site CodelSample Number	Containers	2391			Les # SAD No.	SAD No.	Matrix
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		7	HAAF B 1276 TOLP	,p 8)			2.A	h684h	
		7	HAAF B 1412 TCLP	PF	1			3.4	26844	
->		7	HAAF BI413 TCLP	8 0)			ş	968.617	>
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